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## **II. SUMMARY**

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### **A. INTRODUCTION**

In accordance with CEQA Guidelines § 15123, this Chapter of the EIR provides a brief description of the project; identification of significant effects associated with the project and proposed mitigation measures or alternatives that will reduce or avoid those effects; areas of controversy known to the lead agency; and issues to be resolved including the choice among alternatives and whether and how to mitigate the significant effects.

### **B. PROJECT LOCATION**

The project site is located approximately 5 miles northeast of downtown Long Beach and immediately north of the Long Beach Municipal Airport (Airport). The majority of the site (approximately 238 acres) is located within the City of Long Beach, while the remaining portion of the site (approximately 23 acres) is located within the City of Lakewood. In general, the project site is bounded by Carson Street on the north, the Airport on the south and southwest, Lakewood Boulevard on the east, and the Lakewood Country Club and the Airport on the west.

### **C. PROPOSED PROJECT**

Boeing Realty Corporation (Boeing), the project Applicant, proposes PacifiCenter @ Long Beach (hereafter referred to as the PacifiCenter project or proposed project), which will result in the development of approximately 261 acres of former and existing Boeing C-1 aircraft production facilities located within the Cities of Long Beach and Lakewood. Project implementation will provide for the replacement of over five million square feet of research and development (R&D), office, warehousing, manufacturing, and other aviation-related floor area previously occupied on the project site with new R&D, light industrial, office, retail, hotel, residential, aviation-related, and ancillary uses. In addition, warehouse uses may be developed as accessory uses to permitted uses within the commercial area of the site. The project will be designed as a master planned community integrating a variety of land uses. The project is anticipated to be fully developed by the year 2020.

Two primary land use categories have been proposed as part of the PacifiCenter project: Commercial (office, R&D, light industrial, retail, hotel, and aviation-related uses) and Housing (single-family and multi-family uses). Additionally, a retail overlay zone will be established along a portion of the interface between the Commercial and Housing areas within the eastern portion of the site.

The uses within the Commercial land use category will be developed within approximately 160 acres located within the southern portion of the project site. This area will include up to 3.3 million square feet of office, R&D, light industrial, retail, and aviation-related development. The average floor area ratio in this area will be approximately 0.47, which allows for the development of predominantly low-rise and mid-rise buildings. A maximum of 150,000 square feet of this floor area could consist of retail uses. The Commercial area could also include up to 400 hotel rooms within the portion of the project site within the City of Long Beach.<sup>3</sup> Specific aviation-related uses will be permitted within the more southerly portions of the commercial area adjacent to the Airport. These uses will primarily serve as an amenity to businesses at the project site and will include hanger space for corporate jets and line maintenance “A” checks.<sup>4</sup> In addition, warehouse uses will be permitted as accessory uses. While a maximum of 3.3 million square feet of Commercial floor area can be developed throughout the Commercial area of the site within the Cities of Long Beach and Lakewood, the analyses within this EIR assume that approximately 360,000 square feet may be located in the City of Lakewood in accordance with the M-2 zone.

Residential uses within the Housing land use category will be located on approximately 101 acres within the northern half of the site, including along segments of Carson Street and Lakewood Boulevard, as well as adjacent to the Lakewood Country Club Golf Course. The Housing land use category will provide up to 2,500 single-family and multi-family residential units. Low- to medium-density housing with an approximate average of 16 units per gross acre and a range of approximately 5 to 25 units per gross acre will be provided in the 62-acre western portion of the Housing area. Within this low- to medium-density Housing area of the site, single-family detached units, townhomes, condominiums and townhome/flat combinations may be developed. Medium- to high-density housing with an approximate average of 45 units per gross acre and up to approximately 70 units per gross acre will be provided in the 39-acre eastern portion of the

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<sup>3</sup> A total of 400 hotel rooms are proposed for the project site. Hotel rooms will be in addition to the maximum commercial floor area specified.

<sup>4</sup> Line Maintenance “A” checks are scheduled functional inspections performed from a checklist. The activities include lubrication of moving parts, servicing of fluids, inspection of components, hoses, electrical items and aircraft structure. Lighting and a ground power unit are used during these checks.

Housing area, west of Lakewood Boulevard. Within the medium- to high-density Housing area of the site, condominiums, apartments, townhomes, and townhome/flat combinations may be developed.

As described in Section III, Project Description, of this EIR, since the project is not anticipated to be fully developed until the year 2020, the precise type and amount of development within the land use categories will remain flexible in order to respond to market demands over the course of the development period. Therefore, a development implementation program is proposed as part of the project that will be based on specific development standards set forth in the new Planned Development-32 (PD-32) District for the site. These development standards include such aspects as maximum heights and setbacks from property lines. The development program for the site also specifies a maximum floor area within the Commercial category of 3.3 million square feet, excluding hotel rooms, that can be developed within the project site. Of the commercial floor area, up to 150,000 square feet can be developed with retail uses. In addition, within the Commercial land use category, a maximum of 400 hotel rooms could be developed in the portion of the project site within the City of Long Beach. Up to 2,500 residential units can be developed under the development program for the site. These maximums will also be included in the new PD-32 District for the site.

In addition, a 66-kV substation with a maximum footprint of approximately 305 feet by 230 feet is proposed within either the Commercial or Housing areas of the site. The precise location of this substation, which is expected to be constructed in approximately 2009, will be determined based on further input from Southern California Edison. The substation will serve the project site as well as other off-site areas. If located in the residential portion of the project site or fronting A Street in the commercial area, the substation will be a low profile structure (equipment will be approximately 12 feet in height). If the substation is located in the commercial area not fronting on A Street, the equipment will be approximately 20 feet in height. In either scenario, the substation will have underground feed lines and will include an 8-foot masonry wall located at the building setback line with landscaping between the right-of-way and the wall. Such landscaping will include trees, shrubs, and ground cover.

The project will include recreational and open space amenities. Approximately 10.5 acres of park space are proposed as part of the PacifiCenter project, with 9 acres dedicated, zoned and improved for public park space. Park resources will range in size from less than one acre to approximately 4.5 acres and will include several neighborhood greens, a residential park referred to as The Commons, and a larger, centrally located Civic Green. Landscaping will also be provided throughout the site along the primary

pedestrian walkways, within certain roadway medians, within building setbacks, and at the entrances to the project site.

The PacifiCenter project will be developed in accordance with a Development Agreement with the City of Long Beach. In addition, Design Guidelines, which will address building and roof design, landscape amenities, streetscaping and pedestrian improvements (e.g., sidewalks and bike lanes), signage, exterior lighting, and other physical aspects of the site will guide development of the proposed project.

PacifiCenter will be developed in phased increments (sequenced according to geography and land use type) and is anticipated to be completed by or before the year 2020. Development of the PacifiCenter project will respond to market demands. However, the project will be developed in accordance with a commercial infrastructure phasing plan that will provide commercial infrastructure in advance of market demand. Such infrastructure will include wet utilities (water, sewer, storm drainage), dry utilities (telephone, electricity, gas, cable), streets, traffic signals and signage, street lighting, sidewalks, and parkway landscaping. The initial construction phases of PacifiCenter will focus on the development of housing, site infrastructure for the housing and commercial uses, and the development of commercial uses based on market demands. Later phases will involve further commercial development.

#### **D. PROJECT BACKGROUND**

The City of Long Beach has the primary responsibility for carrying out or approving the project and is therefore, the Lead Agency with principle responsibility for preparing documents required by the California Environmental Quality Act (CEQA). To date, several steps of the public environmental review process have been completed. A Notice of Preparation (NOP) for a Draft Environmental Impact Report (EIR) regarding the PacifiCenter project was originally circulated by the City of Long Beach in May 2001, based on an Initial Study which determined that implementation of the project could result in potentially significant impacts to the environment. Since that time, the project has been revised to reflect input from agencies and the public and to respond to changing economic conditions. Some of the changes that have been incorporated into the project in response to agency and public comment serve to lessen and avoid significant environmental effects that would have occurred under the project identified in the May 2001 NOP. When compared with the May 2001 NOP, the primary changes that have been made to the project as currently proposed include a reduction of approximately 5.1 million square feet of commercial uses and 200 hotel rooms. Other changes to the project identified in the May 2001 that have occurred include changes to the location of on-site uses, increased

street setbacks, changes to the internal circulation pattern, and a reduction in maximum building heights, including building heights along Carson Street. The project as currently proposed also represents a reduction of 1,300 residential units, a reduction in residential density, and a reduction of 1.4 million square feet of commercial floor area when compared with a revised project that was proposed after distribution of the May 2001 NOP and presented to the City and community members, including individuals at community task force meetings.<sup>5</sup> Based on the changes that have been made to the project, an NOP for the current project was circulated in November 2002 to give the public and agencies an opportunity to provide comments regarding the revised project. Copies of the May 2001 NOP and December 2002 NOP and public comments received during the 30-day public comment period for both of these NOPs are provided in Appendix C. In addition, in accordance with Public Resources Code Section 21083.9, a public scoping meeting was held for the project on December 2, 2002 to obtain input as to the scope and content of the environmental information about the proposed project that should be explored in the EIR. The transcript of the scoping meeting is also provided in Appendix C of this EIR.

## **E. SIGNIFICANT AND UNAVOIDABLE ENVIRONMENTAL IMPACTS**

Unavoidable significant impacts can occur as a result of project impacts, cumulative impacts, and as a secondary effect from the implementation of a mitigation measure. Based on the analysis contained in Section V, Environmental Impact Analysis, the project will result in the following significant and unavoidable environmental impacts:

- Regional construction and operational air emissions;
- Off-site localized PM<sub>10</sub> emissions during some phases of construction;
- Off-site noise associated with project traffic at Conant Street east of Lakewood Boulevard during operation. In addition, if A Street is reconfigured in the western portion of the project site to be adjacent to the Lakewood Country Golf Course, traffic noise on this segment will exceed the 5 dBA significance threshold. This noise increase is due to the fact that the current roadway does not support a large amount of traffic;
- Short-term and intermittent construction noise;

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<sup>5</sup> While this project was presented to City staff and various members of the community, it was not included within an NOP.

- Short-term construction traffic;
- Traffic associated with project operation at the following three intersections:
  - Carson Street and Lakewood Boulevard during the P.M. peak hour;
  - Conant Street/B Street and Lakewood Boulevard during the A.M. peak hour; and
  - Spring Street and Lakewood Boulevard during the A.M. and P.M. peak hours
- While project impacts to residential street segments can be reduced through the implementation of a mitigation measure requiring the funding for the implementation of neighborhood traffic management measures, should the jurisdiction(s) with authority to implement these measures fail or be unable to implement acceptable and adequate measures, project impacts on possibly up to three significantly impacted residential street segments would be significant and unavoidable.
- Although the credit/debit analysis indicates that the project will result in an overall benefit to the regional transportation system, and the proposed mitigation measures will further improve conditions, since the future with project condition, including mitigation measures, will result in a D/C ratio increase of 0.020 or more with a final LOS of F on eight of the I-405 mainline segments analyzed, the project's impacts on these freeway segments are considered significant and unavoidable.
- In the event that project-generated General Fund revenue is allocated to municipal purposes other than the provision of police, fire and library services, potentially significant impacts associated with the provision of these services could also occur.

With regard to cumulative analyses contained in Section V, Environmental Impact Analysis, the project will contribute to significant cumulative impacts associated with regional air quality, historic resources, construction and operational traffic, construction noise, operational traffic noise, and solid waste. In addition, the project could potentially contribute to cumulative police, fire protection and library services in the event that General Fund revenue is not allocated to these municipal services.

Finally, as discussed in Section VII, Other Environmental Impacts, of this EIR, implementation of several of the proposed traffic mitigation measures will result in

significant and unavoidable impacts associated with the removal of parking spaces since sufficient parking may not remain to meet parking requirements.

## **F. AREAS OF CONTROVERSY/ISSUES TO BE RESOLVED**

Potential areas of controversy and issues to be resolved by the decision-makers include those areas where an unavoidable significant impact has been projected as well as issue areas where concerns have been raised, primarily through the Notice of Preparation process, indicating a level of controversy. For the PacifiCenter project, the areas of unavoidable significant impact are presented above. Issues raised during the NOP comment periods included hazards and noise associated with the existing Airport and additional traffic. Further issue areas that have been identified as potentially controversial include the relationship of proposed residential uses to existing aviation-related uses, including aircraft overflights.

## **G. ALTERNATIVES**

The CEQA Guidelines require an EIR to “describe the range of reasonable alternatives to the project, or to the location of the project, which will feasibly attain most of the basic objectives of the project but will avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives.” The CEQA Guidelines direct that selection of alternatives be guided by a “rule of reason” that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice.

As described in detail in Section VI, Alternatives, of this EIR, five alternatives to the project were identified, which include a No Project/No Build Alternative, a No Project/Development in Accordance with Existing Plans Alternative, a Reduced Intensity Alternative, and a Non-Residential Alternative. Based on an analysis of these alternatives, an environmentally superior alternative is identified. The five identified alternatives, as well as the identified environmentally superior alternative, are summarized below.

**No Project/No Build Alternative:** The No Project/No Build Alternative assumes that the PacifiCenter project will not be developed and development of the PacifiCenter site with new uses and structures will not otherwise occur. Implementation of the separately approved and permitted soil and groundwater remediation program currently in progress at the site together with permitted demolition activities necessary to implement the remediation program will continue in accordance with Cleanup and Abatement Order 95-048 issued by the Los Angeles Regional Water Quality Control Board. Use of the approximately 380,000 square feet of floor area that is currently occupied within the Boeing Enclave will continue under this Alternative.

Although many of the improvements and project elements proposed as part of the PacifiCenter project that will have beneficial effects will not occur under the No Project/No Build Alternative, this Alternative will not result in new environmental impacts, with the exception of aesthetics, water quality and land use and planning (which will be less than significant). In addition, although new employment and housing impacts will not occur under the No Project/No Build Alternative, such impacts will be greater than under the project as a result of inconsistency with relevant policies set forth in local and regional plans, though such impacts will be less than significant. Impacts to historic resources will be similar to those associated with the project and will also be less than significant. Further, similar to the proposed project, a significant hydrology impact may potentially be maintained due to an existing downstream storm drain deficiency. Nonetheless, the No Project/No Build Alternative will result in an overall reduced level of environmental impact as compared to the PacifiCenter project. With the exception of the existing hydrology impact, all of the potentially significant impacts associated with the project will be avoided under this Alternative. As this Alternative will not involve any new development, it will not meet any of the General, Design, Development Implementation, or Economic project Objectives established for the PacifiCenter project.

**No Project/Development in Accordance with Existing Plans Alternative:** Under the No Project/Development in Accordance with Existing Plans Alternative, the PacifiCenter project will not be developed, but other redevelopment activities will occur on-site on a building-by-building basis. Redevelopment within the portion of the project site within the City of Long Beach will be completed in accordance with PD-19 (the zoning for the site) and LUD Nos. 7 and 12 (the General Plan Land Use Designations for the site). Redevelopment of the portion of the site in the City of Lakewood will proceed in accordance with the regulations set forth for the M-2 zoning, the City of Lakewood General Plan, and the City's Redevelopment Plan for Redevelopment Plan Area III. The amount of floor area development under the No Project/Development in Accordance with Existing Plans Alternative will be consistent with the floor area permitted on-site by the PD-19 Ordinance. When accounting for the over five million square feet of floor area that recently



existed on-site, together with the new floor area allowed by the PD-19 Ordinance (based on the additional trips allowed under PD-19), this Alternative assumes that a total of approximately 6,231,000 square feet of floor area will be replaced and developed. Of this floor area, approximately 4,619,000 square feet of R&D uses, approximately 872,000 square feet of office uses will be developed within the City of Long Beach and use of approximately 380,000 square feet for aviation-related uses (in the Boeing Enclave) will continue. The floor area within the City of Lakewood will include approximately 360,000 square feet or more of industrial/manufacturing development.

The No Project/Development in Accordance with Existing Plans Alternative will result in less impacts to regional and local operational air emissions (although regional emissions will remain significant), traffic noise (although impacts will remain significant), population, housing (relative to projections), employment (relative to policies), police protection (potentially significant), fire protection (potentially significant), schools, recreation, libraries, traffic (all significant intersection impacts will be mitigated and some residential street segment impacts will remain significant), transit, solid waste, and energy as compared to the PacifiCenter project. Impacts to regional and local construction air emissions, historic resources, archaeological resources, grading and site design, seismicity, hazards and hazardous materials, land use and planning, parking, water, and sewer will be similar to those impacts associated with the proposed project. Impacts associated with aesthetics, hydrology, water quality, construction and operational noise, employment (relative to projections), housing (relative to policies), fire flows, and bicycle and pedestrian circulation will be greater under this Alternative than under the project. In addition, some of the improvements and many of the project elements proposed as part of the PacifiCenter project that will have beneficial effects will not occur under the No Project/Development in Accordance with Existing Plans Alternative.

Since the No Project/Development in Accordance with Existing Plans Alternative will likely result in the construction of a total of 5,871,000 square feet of floor area within the City of Long Beach and 360,000 square feet of industrial floor area within the City of Lakewood, implementation of the Alternative will support some of the General Objectives established for the PacifiCenter project. New development will enhance a major employment center in Long Beach by increasing jobs at the project site. In addition, this Alternative includes the development of underutilized land on approximately 23 acres of the site within Lakewood. However, development will occur on a piecemeal basis without the benefit of infrastructure provided in advance of market demand. Additionally, because the No Project/Development in Accordance with Existing Plans Alternative will not increase the housing stock within the City of Long Beach, other General Objectives will not be met with this Alternative, including those regarding the location of housing within close

proximity to growing employment centers to decrease commute time, thereby reducing energy consumption and improving air quality.

Implementation of the No Project/Development in Accordance with Existing Plans Alternative will preclude accomplishment of many of the proposed project's Design Objectives. While this Alternative will encourage industrial and commercial projects in underutilized areas, it will not provide as cohesive and orderly development of the project site as compared with the proposed project. In addition, it will not: provide a mix of land uses with a live, work, and play environment that includes new infrastructure and amenities to attract and support quality tenants; provide a variety of residential opportunities; or provide a mix of secondary land uses, including restaurants, retail space, and hotels, to support tenant needs and reduce employee, resident, and visitor trips and trip distances. Furthermore, as development will occur on a periodic basis, elements proposed as part of the PacifiCenter project, such as extensive open spaces and landscaping will not occur under this Alternative to the degree that they will under the project.

The No Project/Development in Accordance with Existing Plans Alternative will not support the project's Development Implementation Objectives to respond to market conditions, as this Alternative will not facilitate a rapid delivery of various types of space. This Alternative also will not support the basic Economic Objective established for the project, which is to balance reuse opportunities with community needs and environmental constraints in such a manner as to optimize the value of its investment while creating significant employment and housing. Therefore, the majority of the basic objectives of the project will not be attained with implementation of this Alternative.

**Reduced Intensity Alternative:** Similar to the project, the Reduced Intensity Alternative will include approximately 3.3 million square feet of office, R&D, light industrial, retail, aviation-related development, and 400 hotel rooms. Up to 1,400 single- and multi-family residential units will be developed representing a decrease of 1,100 residential units when compared with the project. Eleven acres of park space will be developed, representing an increase of 0.5 acres of parks and open space when compared with the project. Commercial uses will be developed on approximately 160 acres located within the southern portion of the site at an average FAR of 0.47. Four zoning areas will generally guide these commercial uses (three in Long Beach and one in Lakewood). Residential development will be located on approximately 101 acres in the northern portion of the site and will occur at an average intensity of approximately 16 dwelling units per gross acre, net of park space.

This Alternative will result in a reduced level of environmental impact as compared to the PacifiCenter project and no impacts under this Alternative will be greater than the

impacts generated by the project. This Alternative will avoid one of the three significant traffic intersection impacts associated with the project. Furthermore, most of the improvements and project elements proposed as part of the PacifiCenter project that will have beneficial effects will also occur under the Reduced Intensity Alternative.

The Reduced Intensity Alternative will accomplish the General, Design, Development Implementation, and Economic project Objectives established for the PacifiCenter project, although to a lesser degree in certain instances than the proposed project. The Reduced Intensity Alternative will involve new commercial and industrial development that is equivalent to the project and will thereby create an employment/activity center and increasing job opportunities. In addition, the Reduced Intensity Alternative will maximize development potential in the area and will generate revenue for the Cities. However, as this Alternative will not include as many residential units as the proposed project, the general objectives pertaining to the provision of housing will not be met to the same degree as the project. Similar to the proposed project, the Reduced Intensity Alternative will create a mixed-use community and will increase the housing stock within the City of Long Beach. Therefore, the project's General objectives to provide housing along major arterial corridors by recycling old commercial and industrial properties and developing carefully designed, quality residential uses that promote better living conditions and access to employment centers will be attained with this Alternative. In addition, the Reduced Intensity Alternative will support the Development Implementation Objective as it will include a development program that will allow the Alternative to respond to market conditions through the exchange of land uses without exceeding identified environmental impacts.

**Non-Residential Alternative:** The Non-Residential Alternative assumes that the site will be redeveloped with retail and warehouse/distribution uses. Under this Alternative approximately 1.1 million square feet of retail uses will be developed in the northern portion of the project site and approximately 4.0 million square feet of warehouse/distribution uses will be developed toward the more southern portions of the project site. The retail floor area will provide for a new major regional shopping area in the City of Long Beach and the warehouse/distribution floor area will provide for uses that respond to markets associated with the Port of Long Beach, the surrounding freeway system, and the adjacent Long Beach Airport. Similar to the project, operations within the Boeing Enclave may be replaced by new uses if operations in the Boeing Enclave cease.

The Non-Residential Alternative will result in less impacts associated with regional and local operation air emissions (although regional operation air quality impacts will remain significant), population, housing projections, schools, recreation, libraries, traffic (although significant impacts will remain), transit, water, sewer, and natural gas as

compared to the PacifiCenter project. Impacts associated with regional and construction air quality (impacts will remain significant), historic resources, archaeological resources, geology and soils, hazards and hazardous materials, traffic noise (although impacts will remain significant), land use consistency, construction and operation noise from on-site sources, employment, police, fire, and parking will be similar to those impacts associated with the proposed project. Impacts associated with aesthetics, hydrology, water quality, land use compatibility, housing policies, bicycle and pedestrian circulation, solid waste, and electricity will be greater under this Alternative. Furthermore, some of the improvements and many of the project elements proposed as part of the PacifiCenter project which will have beneficial effects will not occur under the Non-Residential Alternative.

Implementation of the Non-Residential Alternative will support some of the General Objectives established for the PacifiCenter project. The new development will maintain and enhance a major employment/activity center. In addition, this Alternative will provide the opportunity to capitalize on the development and economic potential of underutilized properties zoned for commercial and manufacturing uses and will encourage industrial and commercial projects in underutilized areas, thereby making a positive contribution toward the jobs-housing balance and creating job opportunities for the local labor force. This Alternative will also help to reverse the trend of local and regional job losses. As compared with the proposed project, the Non-Residential Alternative will meet these General Objectives regarding economic development, though to a much lesser extent. Furthermore, because the Non-Residential Alternative will not increase the housing stock within the City of Long Beach, the objectives regarding the provision of housing will not be met.

This Alternative will not attain the majority of the General Objectives associated with the Long Beach 2010 Strategic Plan, as the Non-Residential Alternative will not assist in improving the quality and availability of neighborhood housing and will not provide housing along major arterial corridors. However, this Alternative will meet the Strategic Plan objective to retain, expand, and attract new business, although to a lesser extent than achieved by the project since commercial infrastructure will not be provided in advance of market demand. Implementation of the Non-Residential Alternative will preclude accommodation of many of the proposed project's Design Objectives, as the Non-Residential Alternative will not create a master-planned community that blends mutually supportive uses such as employment, housing, and life style amenities. Furthermore, the Non-Residential Alternative will not provide a live, work, and play environment that includes substantial new infrastructure and amenities to attract and support quality tenants, nor will it create a stable residential area, since this Alternative does not include a housing component. Therefore, this Alternative will not provide a variety of residential

opportunities or provide a mix of secondary land uses to support tenant needs and to reduce employee, resident, and visitor trips and trip distances. Finally, as this Alternative will not require that every development within the site comply with design standards, the design objective pertaining to the adherence of such standards will not be met. The Non-Residential Alternative will not support the Development Implementation Objective to develop the project in response to market conditions. This Alternative also will not support the basic Economic Objective established for the project, which is to balance reuse opportunities for the project site with community needs and environmental constraints in such a manner as to optimize the value of the property while creating significant employment and housing. Overall, while some of the basic objectives of the project will be attained with implementation of this Alternative, a majority of them will not be met, largely due to the absence of housing under this Alternative.

### **Environmentally Superior Alternative:**

Of the Alternatives analyzed in the EIR, the No Project/No Build Alternative is considered the overall environmentally superior alternative, as it will reduce nearly all of the significant impacts occurring under the PacifiCenter project to less than significant levels. However, this Alternative will not meet any of the General, Design, Development Implementation, or Economic project Objectives established for the PacifiCenter project. In accordance with the CEQA Guidelines requirement to identify an environmentally superior alternative other than the No Project Alternative, a comparative evaluation of the remaining alternatives indicates that the Reduced Intensity Alternative will be environmentally superior. Relative to the project, the Reduced Intensity Alternative will avoid one of the significant traffic intersection impacts. While it will not avoid any of the remaining significant impacts, it will reduce a number of the impacts that will occur with the project and none of the impacts that will occur under the Reduced Intensity Alternative will be greater than project impacts. In addition, the Reduced Intensity Alternative will generally meet all of the project objectives.

## **H. SUMMARY OF PROJECT FEATURES**

Project Features, which lessen environmental impacts that might otherwise be expected of the proposed project, have been incorporated into the proposed project. These Project Features are specified in the impact analysis for each environmental issue area discussed within Section V of this Draft EIR as well as within Appendix B to this EIR. All of the Project Features are intended to be incorporated as conditions of approval or zoning regulations (development standards) for the proposed project. In addition, several of these project features have also been included as mitigation measures.

## I. SUMMARY OF ENVIRONMENTAL IMPACTS

This section provides a summary of impacts, mitigation measures, and impacts after implementation of the mitigation measures associated with development of the PacifiCenter project. The summary is provided by environmental issue area.

### A. AESTHETICS

**Impacts: Aesthetics** – The project vicinity is an urbanized area that includes a variety of land uses, including industrial, aviation related, residential and commercial uses. The project site has an overall industrial appearance. Implementation of the proposed project will transform the project site into a mixed-use, master-planned community. As part of the project, maximum building height zones that conform to FAA height regulations, minimum setbacks, 10.5 acres of park space and other features are proposed. Although the height and bulk of the PacifiCenter project may present a contrast relative to recent and existing development on the site and in the surrounding vicinity, implementation of the project will result in overall aesthetic benefits. While the maximum building heights in some areas will increase with implementation of the proposed project pursuant to the proposed rezoning of the site, reduced heights will be established in proximity to surrounding sensitive uses, particularly residences to the north. The site-wide variation in building heights will introduce new architectural and design elements, thereby providing visual interest. The project will incorporate landscaping within the public rights-of-way and on private property in accordance with ordinance requirements. In addition, the landscaped setbacks will create visual buffers between the project and the adjacent uses on all peripheral edges of the site. The project will not introduce elements that substantially degrade the existing visual character or qualities of the site and its surroundings, nor will the project remove or demolish features or elements that contribute positively to the visual character of the vicinity. Project development will also represent a substantial aesthetic improvement relative to the appearance of the site as it undergoes building removal as part of the mandated remediation program. Furthermore, the project will be consistent with the goals of the City of Long Beach General Plan through implementation of design guidelines that will allow a variety of building types incorporating quality design and landscaping. The City of Lakewood General Plan goals will also be met, as the project will maintain a human scale and create organization and functional cohesiveness. The project will also comply with the zoning ordinances of each of these Cities and the applicable FAA regulations. Accordingly, project impacts associated with aesthetics will be less than significant.

**Views** – Due to the relatively flat topography in the project vicinity, there are currently only limited views within and of the project site from surrounding areas. While

development of the project site may alter such views, the project will not substantially obstruct or eliminate existing views of valued on- or off-site aesthetic features. In addition, implementation of the project will not conflict with applicable regulations relating to view resources, since, pursuant to such regulations, the project will enhance the overall aesthetic environment while shielding the less aesthetically pleasing elements of development, thereby improving views in the vicinity. As such, impacts associated with views will be less than significant.

**Light** – Night lighting in the vicinity generally consists of streetlights, aviation-related lighting associated with the Airport, business façade lighting, and illumination from vehicle headlights. Implementation of the proposed project will increase ambient light levels on the project site and in the immediate vicinity. However, nighttime exterior light sources will be focused onto the surfaces to be lit (e.g., building details, landscape elements, signs, and pedestrian areas) and shielded as appropriate. Lighting for parking facilities will be directed onto the site and shielded so as to prevent light spillover effects. Aircraft warning lighting will comply with ALUP Safety Policies, as described in Section V.E, Hazards and Hazardous Materials. In addition to the specific design considerations that address exterior lighting, the landscaped setback zones will act as further buffer with regard to light spillover. As such, the project will not result in substantial illumination of any light-sensitive uses in the surrounding vicinity, nor will the project conflict with applicable light regulations. In addition, potent impacts to on-site residences from the flight ramp lighting (within the Enclave) will be shielded by remaining buildings within the Enclave (e.g., Buildings 41A and 15) and to some extent by the proposed screen fencing. Furthermore, as discussed in Section V.I., Noise, a mitigation measure is proposed that prohibits development of residential uses in close proximity to the Boeing Enclave until such time that run-up activities permanently cease, which further reduces the potential for new residential units to be affected by lighting from the Enclave. Thus, overall impacts associated with lighting will be less than significant.

**Glare** – There are no buildings, structures, or facilities that currently generate substantial levels of glare. The intensity of glare associated with the project will depend on the building materials used and the ultimate design of the new development. Highly reflective glass materials or glazing will not be permitted. Furthermore, landscaping will help screen any potential glare from impacting glare-sensitive uses. As such, the project will not conflict with applicable glare regulations set forth by the Cities of Long Beach and Lakewood and by the FAA. Accordingly, glare impacts will be less than significant.

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## Mitigation

The following mitigation measures are provided to ensure that potential impacts associated with aesthetics, views, and light and glare will be less than significant.

- V.A-1      Minimum setbacks measured from the property line to the building face shall be provided in accordance with the requirements of PD-32 (refer to Figure 19 of Section III Project Description, of this EIR for an illustration of these setbacks). The setbacks along the periphery include:
- A 28-foot setback from the property line along Carson Street (excluding the 12-foot right-of-way).
  - A 26-foot setback from the property line along Lakewood Boulevard (excluding the 14-foot right-of-way).
  - A 20-foot setback from the property line adjacent to the Lakewood Country Club.<sup>6</sup>
  - A minimum 20-foot setback along the limited portions of the Airport edge on the southern and southwestern boundaries of the project site that are not part of the Long Beach Airport Layout Plan Building Restriction Zone. The no-build zone, which is greater than 20 feet in width, extends along most of the southern portion of the project site.

Setbacks for several of the internal streets are as follows:

- A 2-foot setback from the property line (excluding the 10-foot right-of-way) along A Street between Lakewood Boulevard and 1st Street for street-oriented retail uses.
- A 10-foot setback from the property line (excluding the 11-foot right-of-way) along 1st Street.

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<sup>6</sup> *If A Street in the western portion of the site is located adjacent to the Golf Course, the minimum building setback will be 5 feet from the property line (excluding the 11 foot right of way).*



- An 18-foot setback from the property line (excluding the 11-foot right-of-way) along other internal collector roadways, including 2nd and 3rd Streets, except for those street segments that abut Building Restriction Zones, where adjacent development is not permitted.<sup>7</sup>
- V.A-2 Maximum building heights shall be defined in the PD-32 ordinance in conformance with Figure 14 in Section III, Project Description, of this EIR. The proposed maximum building heights shall be measured from curb elevation to the top of a parapet or midpoint of a pitched roof within the City of Long Beach. Project buildings located within the City of Lakewood shall be limited to four stories and 55 feet, measured from finished grade to the ceiling of the uppermost story.
- V.A-3 Design Guidelines shall be developed for the PacifiCenter project and shall establish standards regarding building and roof design, landscape amenities, streetscaping and pedestrian improvements, including sidewalks and bike lanes, and signage and exterior lighting.
- V.A-4 New utility lines for water, gas, sewer, electricity, and communications associated with the project shall be installed underground, to the extent feasible. Underground utility installation shall not interfere with the ongoing remediation program and shall comply with the Risk Management Plan (RMP) designed to assure the long-term protection of health and safety of future residents and employees at the project site. Service areas, including loading docks, refuse collection areas and storage areas shall be visually screened from the street and adjacent parcels to the extent feasible.
- V.A-5 All night lighting installed on private property within the project site shall be shielded, directed away from residential uses, and confined to the project site. Rooftop lighting shall be limited to security lighting or aviation warning lights in accordance with Airport/FAA requirements.
- V.A-6 All lighting shall comply with all applicable ALUP Safety Policies and FAA regulations.

<sup>7</sup> Additional internal streets may be constructed within the project site. Setbacks along these streets will vary and may be less than 30 feet, in accordance with the Design Guidelines to be implemented as part of the project.

- V.A-7      The use of glass with over 25 percent reflectivity shall be prohibited in the exterior of all buildings on the project site.
- V.A-8      If located in the residential portion of the project site or fronting A Street in the commercial area, the electrical substation shall be a low profile structure (equipment will be approximately 12 feet in height) whereas if the substation is located in the commercial area not fronting on A Street the equipment may be approximately 20 feet in height.
- V.A-9      The electrical substation to be constructed on-site shall include an 8-foot masonry wall located at the building setback line. The area between the right-of-way and the setback shall be landscaped with groundcover, shrubs and trees.
- V.A-10     Landscaping shall be installed on the eastern side of the Enclave fence from the north end of Building 15 to the southern property line upon installation of Phase I commercial infrastructure. Landscaping shall be installed on the northern side of the fence surrounding the Enclave or along the proposed street to the north of the Enclave upon development of the residential units in the northwestern portion of the site as shown in Figure 25 of this EIR.
- V.A-11     All parking structure lighting shall be shielded and directed away from residential uses. Such lighting shall be primarily located and directed so as to provide adequate security. Rooftop lighting shall be limited to security lighting and aircraft warning lights as may be required by FAA.
- V.A-12     The south side of existing Building 1C shall be screened from views along A Street by an architectural facade. The remaining east, west and north sides of 1C shall also be screened to minimize views of the structure. This shall be accomplished with either an architectural facade similar to the south side of the building, with landscape screening using evergreen trees and shrubs in front of a masonry wall or with landscape screening using evergreen trees and shrubs. Should the north, east or west side of 1C be located fronting A street, then the street shall be located so that the building is set back from the right-of-way in a similar manner as if it were a new building in this area.

**Level of Significance After Mitigation:** Incorporation of Project Features and mitigation measures will ensure that the project will not result in significant and unavoidable impacts relative to aesthetics, views, or light and glare.

**Cumulative Impacts:** Several projects are proposed in the general vicinity of the project site, including the ongoing on-site soil and groundwater remediation activities associated with Cleanup and Abatement Order 95-048 (Related Project No. 44). Due to the relatively flat topography and the urbanized nature of the area, the related projects will not be prominent in views from the site or the immediately surrounding area. None of the related projects is expected to appreciably alter the urban character of the area. Furthermore, each of the cumulative projects will be subject to the project and permit approval process. As such, no significant cumulative impact to aesthetics, views, and light and glare will occur.

## **B. AIR QUALITY**

The project site is located in the South Coast Air Basin (Basin). The Basin is an area of high air pollution potential, particularly from June through September. The Basin is in attainment for NO<sub>2</sub>, lead, SO<sub>2</sub>, and CO. PM<sub>10</sub> and ozone levels, while reduced substantially from their peak levels, are still far from attainment.

### **Construction**

Construction of the proposed PacifiCenter project will generate emissions from activities such as site preparation operations (grading/excavation) and delivery and hauling of construction materials and supplies to and from the project site. Regional construction emissions calculated for this project will exceed South Coast Air Quality Management District (SCAQMD) daily thresholds established for CO, PM<sub>10</sub>, ROC and NO<sub>x</sub>. Thus, construction emissions will result in significant short-term regional air quality impacts for these pollutants. Daily emissions of SO<sub>x</sub> will be considered adverse, but less than significant, since the levels of these emissions will fall below the SCAQMD significance thresholds.

Fugitive dust is also produced from soil disturbance during the grading/site preparation phase of construction. Dispersion modeling was performed to determine the extent of fugitive dust concentrations at nearby sensitive receptors. Results of the PM<sub>10</sub> dispersion modeling indicate that development of the proposed project could cause an exceedance of the 10.4 µg/m<sup>3</sup> (micrograms per cubic meter) PM<sub>10</sub> measurable increase significance threshold. Therefore, construction-related fugitive dust concentrations could

result in a significant impact to local air quality. No significant impacts related to local air toxics, CO, and NO<sub>2</sub> concentrations from construction are forecast to occur as a result of the project.

### **Operation**

Air pollutant emissions associated with project occupancy and operation will be generated by both the consumption of energy and by miscellaneous sources (e.g., landscape equipment, emergency generators, etc.). Project-related operational emissions for on-road mobile sources and stationary sources will exceed all SCAQMD thresholds for operational emissions, with the exception of SO<sub>x</sub>, and will represent a significant impact to regional air quality.

During the operational phase of the project, project traffic will have the potential to generate local area CO impacts. An analysis at ten selected intersections was performed to determine the potential for the creation of CO hotspots attributable to the proposed project. This analysis of ten intersections indicated that project-related traffic will not result in any exceedances of the State one-hour CO standards at any of the study intersections. Similarly, eight-hour concentrations at the analyzed intersections will remain below the State standards.

The air quality analysis examined the consistency of the proposed project with AQMD's Air Quality Management Plan (AQMP). No significant impacts will occur as a result of the project with respect to consistency with applicable air quality management policies.

### **Health Risk**

Using data provided by the AQMD and the Airport, an assessment of the potential for nearby uses to generate hazardous and acutely hazardous air emissions to impact proposed on-site residential uses was performed. For carcinogenic exposures, the summation of risk totaled  $8.3 \times 10^{-6}$  (8.3 in a million) for the maximum exposed individual (MEI) within the proposed residential land use. In comparison to the established threshold of ten in one million ( $1.0 \times 10^{-5}$ ), carcinogenic risks fall within acceptable limits. For noncarcinogenic chronic exposures, the maximum summation of risks was 0.02 for the MEI within the proposed residential land use. In comparison to the established threshold of 1.0, chronic risks are below the threshold. For noncarcinogenic acute exposures, the maximum summation of risks was 0.03 for the MEI within the proposed residential land

use. In comparison to the established threshold of 1.0, acute risks are below the threshold.

### **Mitigation**

The following air quality mitigation measures set forth a program of air pollution control strategies designed to reduce the project's air quality impacts. In addition, Section V.L, Transportation/Circulation and Parking, of this Draft EIR, includes traffic mitigation measures, such as the Adaptive Traffic Control System (ATCS) that will serve to synchronize traffic signals and a Transportation Demand Management (TDM) program that will include preferred carpool/vanpool parking and matching, thereby reducing mobile source air emissions. In addition to the mitigation measures, the project features specified in Section V.B, Air Quality, and in Appendix B will further reduce the project's air quality impacts.

### **Construction**

Mitigation Measures provided below implement recommended mitigation measures provided in SCAQMD's *CEQA Air Quality Handbook*, Chapter 11, and are in addition to the requirements of SCAQMD Rule 403 (Fugitive Dust).

- |       |   |
|-------|---|
| V.B-1 | All land clearing/earth-moving activity areas shall be watered to control dust as necessary to remain visibly moist during active operations.   |
| V.B-2 | All construction roads internal to the construction site that have a traffic volume of more than 50 daily trips by construction equipment, or 150 total daily trips for all vehicles, shall be surfaced with base material or decomposed granite. |
| V.B-3 | Streets shall be swept as needed during construction, but not more frequently than hourly, if visible soil material has been carried onto adjacent public paved roads.  |
| V.B-4 | Construction equipment shall be visually inspected prior to leaving the site and loose dirt shall be washed off with wheel washers as necessary.  |
| V.B-5 | Water three times daily or non-toxic soil stabilizers shall be applied, according to manufacturers' specifications, as needed to reduce off-  |

- site transport of fugitive dust from all unpaved staging areas and unpaved road surfaces.
- V.B-6 Traffic speeds on all unpaved roads shall not exceed 15 mph.
- V.B-7 All equipment shall be properly tuned and maintained in accordance with manufacturer's specifications.
- V.B-8 General contractors shall maintain and operate construction equipment so as to minimize exhaust emissions. During construction, trucks and vehicles in loading and unloading queues will have their engines turned off when not in use, to reduce vehicle emissions. Construction activities should be phased and scheduled to avoid emissions peaks and discontinued during second-stage smog alerts.
- V.B-9 On-site construction equipment staging areas and construction worker parking lots shall be located on either paved surfaces or unpaved surfaces subject to soil stabilization.
- V.B-10 To the extent possible, petroleum powered construction activity shall utilize electricity from power poles rather than temporary diesel power generators and/or gasoline power generators.
- V.B-11 On-site mobile equipment shall be powered by alternative fuel sources (i.e., methanol, natural gas, propane or butane) as feasible.
- V.B-12 All construction equipment used in the project construction shall be stored within the project site (away from adjacent residential areas) to reduce the impact on the street system.
- V.B-13 Deliveries related to construction activities that affect traffic flow shall be scheduled during off-peak hours (e.g., 10:00 A.M. and 3:00 P.M.) and coordinated to achieve consolidated truck trips. When traffic flow is impacted by the movement of construction materials and/or equipment, temporary traffic controls shall be provided to improve traffic flow (e.g., flag person).
- V.B-14 All on-site heavy-duty construction equipment shall be equipped with diesel particulate traps as feasible.

- V.B-15 In compliance with Long Beach Municipal Code and Lakewood Municipal Code requirements, construction activities shall be limited to the following operation schedule: weekdays and federal holidays, 7 A.M. to 7 P.M.; Saturday, 9 A.M. to 6 P.M.; no activities on Sundays within the City of Long Beach; and Sunday, 9 A.M. to 7 P.M. within the City of Lakewood.

### **Operation**

Emission control measures are specified for three sources of operational emissions: (1) service and support facilities; (2) natural gas consumption and electricity production; (3) building materials, architectural coatings, and cleaning solvents; and (4) warehouse/distribution centers.

#### **(a) Service and Support Facilities (point sources)**

- MM-V.B-16 All point source facilities shall obtain all required permits from the SCAQMD. The issuance of these permits by the SCAQMD will require the operators of these facilities to implement Best Available Control Technology and other required measures that reduce emissions of criteria air pollutants.
- MM-V.B-17 Land uses on the project site shall be limited to those that do not emit high levels of potentially toxic contaminants or odors.

#### **(b) Natural Gas Consumption and Electricity Production**

- MM-V.B-18 All residential and non-residential buildings shall meet the California Title 24 Energy Efficiency standards for water heating, space heating and cooling, to the extent feasible.
- MM-V.B-19 All fixtures used for lighting of exterior common areas shall be regulated by automatic devices to turn off lights when they are not needed.

#### **(c) Building Materials and Architectural Coatings**

- MM-V.B-20 Building materials, architectural coatings and cleaning solvents shall comply with all applicable SCAQMD rules and regulations.

**(d) Warehouse Uses**

The following mitigation measures shall be considered during operation of any accessory warehouse/distribution uses at the project site to ensure that health risk impacts are less than significant.

MM-V.B-21 Re-route truck traffic by restricting truck traffic on certain sensitive routes;

MM-V.B-22 Enforce truck parking restrictions;

MM-V.B-23 Restrict truck idling;

MM-V.B-24 Electrify service equipment at the warehouse;

MM-V.B-25 Provide electrical hook-ups for trucks that need to cool their load;

MM-V.B-26 Electrify auxiliary power units; and

MM-V.B-27 Use low-sulfur diesel fuel with particulate traps, where feasible.

**Level of Significance After Mitigation****Construction**

Activities related to construction of the project will still exceed the SCAQMD daily emission thresholds for regional NO<sub>x</sub>, CO, PM<sub>10</sub>, and ROC after implementation of all feasible mitigation measures and incorporation of project features as described above. Therefore, construction of the project will have a significant and unavoidable impact on regional air quality. Construction emissions will not exceed the SCAQMD significance threshold for SO<sub>x</sub>, and, thus, impacts are concluded to be less than significant for SO<sub>x</sub>.

No significant impacts related to local air toxics, CO, and NO<sub>2</sub> concentrations from construction are forecast to occur for the project. However, based on conservative assumptions, with mitigation, local PM<sub>10</sub> construction concentrations will result in a significant net increase in emissions to areas north of the project site. These offsite impacts will decrease as site preparation activities move from the northern portion of the project site towards the more central and southern portions of the project site.



## **Operation**

During the operational phase, the project will result in a significant net increase in regional emissions of CO, ROC, NO<sub>x</sub>, and PM<sub>10</sub> from the operation of both stationary and mobile sources. Mitigation measures and project features will reduce the potential air quality impacts of the project to the degree technically feasible, but emissions will remain above SCAQMD significance thresholds. Therefore, operation of the proposed project will have a significant and unavoidable impact on regional air quality. Operational emissions will not exceed the SCAQMD significance threshold for SO<sub>2</sub>, and, thus, impacts are concluded to be less than significant for SO<sub>2</sub>.

Local CO concentrations as a result of project-related traffic and emissions of air toxics are not forecast to be significant for the project.

## **Cumulative Impacts**

Based on the SCAQMD's significance threshold, a project will have a significant cumulative air quality impact if the daily project vehicle miles traveled to daily countywide vehicle miles traveled ratio exceeds the ratio of daily project vehicles to daily countywide employees. The daily project to countywide vehicle miles traveled ratio is less than the daily project to countywide employee ratio. Therefore, based on this analysis the project will have a less than significant cumulative impact on air quality. Nevertheless, implementation of the project will result in an increase in emissions which will contribute to region-wide emissions on a cumulative basis. As such, the project's cumulative air quality impact is concluded to be significant.

## **C. CULTURAL RESOURCES**

### **Archaeological Resources**

**Impacts:** The archaeological assessment conducted for the proposed project did not determine the existence of any previously identified archaeological resources within the project site. However, due to existing development on the site, survey and testing procedures could not be completed. As such, it must be determined that there is a potential of encountering unknown, buried archaeological resources during construction activities within the project site. Therefore, potential impacts related to the disturbance of previously unknown archaeological resources will be considered significant.

**Mitigation:** With the following mitigation measures in place, the discovery of any and all prehistoric and historic archaeological resources is anticipated.

If at any time an archaeological resource is located, the preferred treatment measure will be to avoid the resource. Avoidance of any such discovered resources will be considered feasible and will be implemented as preferred mitigation if the resource is located within a part of the project site designated for open space and will not require mass grading in conjunction with surrounding areas. If it is determined that only a portion of the resource will be affected by the project, then mitigation shall be restricted to those parts of the archaeological resource that would be damaged or destroyed.

### **Pedestrian Survey and Refinement to the ARS Map**

V.C-1      The permitted demolition activities associated with the remediation program cover approximately 80 percent of the Boeing C-1 Facility. Once this area has been cleared of buildings and asphalt, an opportunity exists to refine the ARS map. Many of the assumptions regarding modern impacts will either be validated or dismissed. The geology of the facility will also become more clear. Recording this new data is paramount to discovery efforts.

A pedestrian survey shall be conducted across surfaces exposed during the remediation program. The survey team would include a geoarchaeologist and several archaeologists. Documentation of disturbances and geology would be made when relevant. If remediation of soil occurred, there is the potential to evaluate stratigraphic data. All data gathered during the survey would be incorporated into the refined ARS map. If areas within the remediation program can be determined to have less potential to contain archaeological resources, then testing efforts can be focused elsewhere.

### **Testing Program**

V.C-2      The recommended testing program involves the systematic placement of mechanical probes across the project site prior to any new construction. Backhoe trenches will be used as the primary method of probing. Trenches will be placed in areas that are clear of utility lines and where the probability of relatively shallow (less than 5 feet) archaeological deposits is indicated by the Archaeological Resources Sensitivity (ARS) Map. Alternate means of mechanical probing will be initiated only if backhoe trenching is deemed

ineffective for a particular area. In these instances, continuous cores and/or auger cores will be used.

Table 20 contains the percentage of area covered by each Sensitivity Class on the ARS map and the maximum number of probes proposed in the testing program. Only a handful of mechanical probes shall be placed in Sensitivity Class I areas, where the probability of encountering an intact archaeological deposit is quite low. These areas are highly disturbed and the presence of utility lines and other infrastructure dictate a cautious approach. This class accounts for roughly 11 percent of the entire project site. The majority of the project site, 74 percent, is classified as either Sensitivity Class II or III. Subsurface probes placed in these areas will assess the actual impacts from past construction activities and could result in their reclassification into a lower sensitivity class. Placement of the trenches will depend on particular stratigraphic data encountered, but it is expected that no less than one trench for every five acres will be required. This results in a total of roughly 40 trenches. The highest density of subsurface test probes will be placed in Sensitivity Class IV or V areas, where ten trenches will be placed in each class respectively.

### **Data Recovery Program**

- V.C-3      If an archaeological resource is found during the mechanical probing program, a determination will be made regarding whether the resource can be avoided by the proposed development. If not, data recovery measures will commence. In this section, data recovery measures are specified for various types of archaeological resources to account for variability in site size, density and character.

Should an archaeological resource be discovered, it will go through a three-phase data recovery program of fieldwork followed by laboratory analysis and reporting. The first phase of fieldwork will involve the definition of the archaeological site boundary and an evaluation of site integrity.

The objective of this phase is the characterization of the archaeological deposit, which will be accomplished through the hand excavation of a small number of test units. The second phase involves the mechanical excavation of the entire deposit area that will be impacted by construction activities. The careful removal of the site will allow archaeologists to recover important scientific information on

formation processes and site function and to detect cultural features. The third phase of fieldwork will ensue if features are identified. All features will be hand excavated in their entirety. Fieldwork will be followed by analysis of the recovered materials, the preparation of a technical report, and curation of all project-related materials.

### **Phase 1: Site Characterization**

Should an archaeological resource be encountered, it will be subjected to site boundary definition. This measure entails an assessment of the resource at the time of discovery. Site boundary definition may require the excavation of backhoe trenches to trace out the subsurface extent of the discovered resource. A backhoe will be used to remove fill and to excavate a series of trenches through the site area. The purpose of the trenches is to define the horizontal and vertical extent of the site and to identify any potential subsurface features. A geoarchaeologist will also inspect the resource and the surrounding sediments to determine whether or not it is in situ. If the discovery is determined to be an archaeological resource, then data recovery measures will be enacted.

Archaeological resources can be divided into two broad categories; prehistoric and historic. Examples of archaeological resources are presented along with the projected Phase 1 level of mitigation effort. All examples assume that project-related activities would not allow the resource to be preserved in place and that damage to the entire resource may be expected.

### **Prehistoric Sites**

Prehistoric archaeological resources common to the Los Angeles Basin include habitations, special activity sites, artifact scatters, and isolated features.

**Habitations.** In the Long Beach area, habitation sites consist of accretional midden deposits. These deposits are often composed of organic remains including vertebrate and invertebrate fauna as well as stone and shell artifacts. Features found in these middens may include hearths, storage pits, piles of fire-affected rock, and burials.

During Phase 1 data recovery of habitation sites, hand excavation of a sample of test units shall occur. In all cases, at least four test units

will be excavated, with the maximum number of units not to exceed 10 percent of the area within the archaeological site boundaries. Excavation units will be placed according to trench profiles created during site boundary definition. Test units will be 1-by-1-m in size and excavated stratigraphically where possible. If natural or cultural strata are not evident, units will be excavated in arbitrary 10-cm levels. All materials will be screened through 1/4-inch mesh hardware cloth and collected separately. Photographs will be taken of selected units, and profiles will be drawn of each unit. Appropriate paperwork will be filled out during the excavation to accurately track all artifacts, samples, and soil removed from the site. Geoarchaeological documentation will include description of soils and stratigraphy.

**Special Activity Sites.** Special-activity middens are typically food-processing locales that are rich with marine shell and lithic materials. These sites are less likely to contain features and rarely contain burials. Because of the homogenous nature of these sites, less excavation effort will be necessary to characterize the deposit.

At least two test units at each special-activity site shall be excavated, with the maximum number of test units not to exceed 5 percent of the site's defined area. These units will provide sufficient data to address regional research issues. Excavation will proceed as outlined above.

**Artifact Scatters and Isolated Features.** Artifact scatters is a category of site that includes numerous functions and manifestations. A flaked stone chipping station or a closely associated set of manos and metates would qualify as an artifact scatter. Artifact scatters are often difficult to identify during trenching or grading activities because their archaeological signature does not necessarily contain a discoloration of the soil. Isolated features are also difficult to identify during trenching and grading. Small hearths and roasting pits, for example, often go undetected because of their small size.

For artifact scatters, a sample of two test units at each site shall be hand excavated, with the maximum number of test units not to exceed 5 percent of the total site area. All isolated features encountered will be excavated in their entirety. Excavation will proceed as outlined above.

## **Historical-Period Sites**

Types of historical-period archaeological resources include trash scatters, wells, privies, foundations, and water control features. Based on early 20th century photos, the project vicinity was used as pasture or grazing land. As such, the remnants of wells, fence lines, watering troughs, and the like that may have been associated with such agrarian activities may be encountered.

In the event that a historical-period feature is encountered, intact portions shall be defined and a sample of associated artifacts from undisturbed contexts shall be excavated. In the event that features such as privies or wells are encountered, at least half of the undisturbed deposit will be hand excavated according to the methods outlined below (see Phase 3: Feature Excavation). For features that have no associated artifacts, such as fence posts, wall remnants, and water troughs, the feature shall be documented through photographs, notes, and drawings.

Historical-period trash scatters may also occur on the project site. After the area of any encountered trash scatter has been defined, at least two test pits will be manually excavated, with the hand-excavated sample not to exceed 5 percent of the site area.

## **Phase 2: Mechanical Excavation**

Once an archaeological site has been adequately characterized through the hand excavation of test pits, that portion of the site that will be destroyed by construction activities will be mechanically excavated. Using a tracked backhoe or similar equipment fitted with a flat blade, the archaeological deposit will be removed in 10-cm levels. The operation will be monitored by a professional archaeologist. Selected portions of the removed fill will be screened through 1/2-inch mesh hardware cloth; provenience of the screen material will be set to the site grid and elevation. Features, occupational surfaces, and activity areas will be flagged. Mechanical operations will cease at this point, and hand excavation will ensue (see below). Upon completion of feature excavation, mechanical excavation will resume in an attempt to discover additional features. Mechanical excavations will cease at the base of the archaeological deposit.

### **Phase 3: Feature Excavation**

In the event that archaeological features, such as hearths, roasting pits, or house floors, are discovered, archaeologists will excavate them in their entirety. Smaller features may be bisected and excavated in two halves; larger features may be quartered. Additionally, areas surrounding features will be excavated to ensure that data from related activity areas are collected. In the event that occupational surfaces are identified, the surface will be gridded and excavated in its entirety.

Excavated fill will be screened through 1/4-inch mesh hardware cloth. Paleobotanical and chronometric samples will be collected from appropriate contexts. All excavated features will be documented thoroughly with photographs, profiles, plan maps, and field notes. Provisions for the treatment of human remains in the event that they are discovered are detailed below.

### **Lab Sorting and Analysis**

After completion of excavations of an archaeological resource, materials collected will be transported to a qualified archaeological laboratory. Maintaining data integrity and information retrieval are primary goals of laboratory analysis. Toward this end, computerized inventories of artifacts and samples, provenience information, and storage boxes are maintained. Artifacts are generally cleaned and processed to the extent that attributes can be observed and recorded, without damaging the artifacts. Archival-quality storage materials are used for artifacts, photographs, and slides. Following processing and cataloging, materials are rebagged and checked out to the analysts for study.

Analysts will carry out intensive analysis of artifacts and samples recovered during the excavation. This includes lithic, faunal, pollen, phytolith, macrofossil, historical-period artifact, and chronometric analyses.

### **Report Preparation**

A professional report will be issued detailing the findings of archaeological data recovery. The report will consist of a project background, description of field methods, results of archaeological

investigations, a geomorphological evaluation, and management recommendations. All artifacts recovered from testing will be identified and analyzed, and appropriate chapters containing this information will also appear in the report. All project-related materials will be curated at a repository meeting the state standards.

### **Discovery of Native American Remains and Funerary Items**

V.C-4 In the event that human bone and associated funerary items are uncovered during the course of the field investigations, the following protocol will be followed per State CEQA Guidelines §15064.5(e):

1. All work in the area will be halted.
2. The Los Angeles County Coroner will be contacted in accordance with Section 7050.5(b) of the California Health and Safety Code.
3. A representative from the coroner's office will come to the site and determine whether the remains are subject to the provisions of Section 27491 of the California Government Code or other related provisions of law concerning investigation of the circumstances, manner, and cause of death, as required by Section 7050.5(b) of the California Health and Safety Code. The coroner will make this determination within two working days of notification.
4. If the coroner determines that the remains are those of a Native American, Section 7050.5(b) of the California Health and Safety Code requires that the coroner contact the Native American Heritage Commission by telephone, at (916) 653-4082, within 24 hours.
5. The Native American Heritage Commission will proceed to contact the most likely descendant (MLD) and will coordinate the final disposition of the remains with the most appropriate local Native American representative, according to the provisions of Section 5097.98 of the California Public Resources Code.
6. Copies of all correspondence regarding the discovery of human remains will be included as a confidential appendix of the data recovery excavation report, to be provided to all parties but not circulated for public review.



### **Accidental Discovery**

- V.C-5      If archeological resources of any nature should be accidentally encountered during construction activity on the project site, work shall be temporarily suspended in the immediate area of the discovery. In such case, a qualified archaeologist shall be called in to evaluate the find and to determine if it is unique as defined in Public Resources Code Section 21083.2(g). Should the find be determined to be unique, a mitigation plan specifying data recovery shall be defined and implemented. Construction may be reconvened in any area determined by the archaeologist not to adversely affect the unique archeological resources accidentally discovered.

**Level of Significance After Mitigation:** With implementation of the proposed mitigation measures, impacts on archaeological resources will be less than significant.

### **Paleontological Resources**

**Impacts:** The Vertebrate Paleontology Section of the Natural History Museum of Los Angeles County records search identified surficial deposits composed of terrestrial Quaternary Alluvium in the uppermost layers of soils within a one-mile radius of the project site. Since the project site and much of the surrounding vicinity has been previously graded and developed, these deposits do not likely contain significant fossils in the uppermost layers. However, at greater depths, older terrestrial Quaternary deposits that contain significant vertebrate fossils and Plio-Pleistocene marine sediments and fossil vertebrate remains have been identified within a one-mile radius of the project site. Therefore, shallow excavations on the project site will not likely encounter significant vertebrate fossils. Deeper excavations, however, could encounter terrestrial vertebrate fossils Late Pleistocene age.

**Mitigation:** The following mitigation measures are recommended to reduce potential impacts to paleontological resources resulting from the proposed project:

- V.C-6      If unknown paleontological resources are discovered during any grading or construction activity, work will stop in the immediate area. Upon such discoveries a qualified paleontologist shall be consulted to determine the discovery's significance and, if necessary, formulate a mitigation plan, including avoidance alternatives, if feasible, to mitigate impacts. Work can only resume in that area with the approval of the project paleontologist. The paleontologist shall be selected from a list of qualified paleontologists maintained by the

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Vertebrate Paleontology Section of the Natural History Museum of  
Los Angeles County.

**Level of Significance After Mitigation:** With implementation of the proposed mitigation measures, impacts on paleontological resources will be less than significant.

### **Historic Resources**

**Impacts:** A survey of the site identified a grouping of 18 buildings and two other features as a potential historic district eligible for the National Register of Historic Places, the California Register of Historical Resources, and as a City of Long Beach local landmark. Activities associated with the potential district significantly contributed to the history of the aviation industry in southern California, the war (World War II) effort and the movement to use women workers on the Home Front, and to the development and growth of Long Beach and Lakewood. The ongoing demolition activities necessitated by compliance with the mandated remediation program will remove all contributing and non-contributing resources with the potential exception of Building 15 within the Boeing Enclave, which may ultimately be demolished as part of the project. Demolition of Building 15 will not be a significant project impact because this structure does not appear individually eligible for the National Register, California Register or local landmark designation and because upon its demolition, all other resources contributing to the potential district will already have been removed to provide for the remediation program.

**Mitigation:** The following mitigation measures are recommended to reduce impacts to historic resources resulting from the proposed project.

### **Recordation**

- V.C-7      Prior to the demolition of structures and features contributing to the potential historic district in compliance with the mandated remediation program, a Historic American Building Survey (HABS) Level II recordation document shall be prepared. This report shall document the history of each building within the historic district and their physical conditions, both historic and current, through site plans, historic maps and photographs, current photographs, written data, and text. The document shall include:
- a. Written text documenting the history and architectural and engineering features of the property. This text should include a

contextual history of Douglas Aircraft and its significant role in American aviation and World War II, as well as its history in Long Beach and southern California. Biographical information regarding Donald Douglas and the Taylor Brothers (Edward Cray and Ellis Wing), the principal architects of the facility, should also be included. Published references related to the construction of the facility, the activities of the Douglas Aircraft Company, Long Beach Plant during the district's period of significance, and other bibliographic sources should be included as well.

- b. Photographic documentation noting all exterior elevations and primary interior features. Photographs should be large format, black and white, archivally processed, taken by a professional photographer familiar with the recordation of historic buildings, and prepared in a format consistent with HABS guidelines and standards. Views shall include several contextual views, all exterior elevations, detailed views of significant exterior architectural/historical features, and interior views of significant historical/architectural features or spaces (if any).
- c. Photographic copies or original prints (per HABS guidelines) of historical photographs should also be included in the HABS document.
- d. A sketch floor plan on 8½" x 11" paper shall accompany each building documented.
- e. Archival originals of the recordation document shall be submitted to the National Park Service for submission to the Library of Congress.
- f. Archival copies of the recordation document shall be submitted to the California Office of Historic Preservation, the City of Long Beach Planning Division (the City's Neighborhood Preservation Officer), City of Long Beach Main Public Library, the Long Beach Heritage, the Historical Society of Long Beach, and the Boeing Company Historical Archives-Cerritos location.

### **Educational and Interpretative Programs**

- V.C-8      To assist the public in understanding the history of the Long Beach facility, an on site interpretive program display or other photographic

and textual representation shall be created and shall be available to the general public. This educational program should include information specific to the facility's contribution to the history of the aviation industry in southern California, the war (World War II) effort and the movement to use women workers on the Home Front (Rosie the Riveter), and in the development and substantial growth of the Long Beach and Lakewood areas. Such interpretive programs may be in the form of commemorative signage and/or plaques; historical photographs; models; and/or published information such as brochures, videos, electronic media, etc. Materials such as those in the interpretive exhibit currently displayed at the Boeing Long Beach facility in the Boeing Realty Company Visitor's Center (Building 1) could be used to satisfy this mitigation measure, incorporated on site into the overall design of the proposed project, and maintained regularly.

**Cumulative Impacts:** Implementation of the proposed project, together with related projects in the region, could contribute to the progressive loss of, and irretrievable loss of access to, potential archaeological resources. The project's contribution to that loss is difficult to evaluate since the existence and significance of as yet undiscovered artifacts are not known. However, implementation of relevant preservation laws regarding the protection of archaeological resources will reduce the cumulative impact to a less than significant level.

Similar to archaeological resources, cumulative development could result in the progressive and irretrievable loss of access to potential paleontological resources, the project's contribution to which cannot be assessed since the existence and significance of as yet undiscovered fossils cannot be predicted. However, implementation of regulations regarding the protection of paleontological resources will reduce cumulative impacts associated with such resources to a less than significant level.

The potential historic district appears eligible for the National Register, California Register, and local designation. The demolition of the buildings and features contributing to the identified potential historic district on-site as part of the mandated and ongoing soil and groundwater remediation program (Related Project No. 44) will result in a substantial adverse change in the significance of this historical resource. The site will no longer retain its historic integrity due to the loss of materials, workmanship, feeling, association, design, setting, and location. This change will result in a significant and unavoidable effect on the environment. To the extent that Building 15 is removed as part of the project, the project will contribute to a significant cumulative impact on historic resources. Even with the

recommended mitigation measures, cumulative impacts on historic resources will be considered significant and unavoidable.

#### D. GEOLOGY AND SOILS

**Impacts:** As the site is relatively flat and grading and construction will occur entirely in areas previously graded and/or developed, project implementation will not result in landslides or unstable soil conditions that will expose people, property, or structures to an increased risk of hazard or damage. With implementation of appropriate construction techniques, project implementation will result in less than significant impacts associated with erosion. The proposed project will also be constructed in accordance with State and local regulations governing grading and site design. Furthermore, detailed geotechnical studies will be prepared for each building to be constructed to minimize potential geological impacts. Thus, project impacts relative to grading and site design implications will be less than significant.

No known active or potentially active faults pass directly beneath the project site, and the site is not located in a known fault hazard zone. However, known regional active faults (i.e., the Newport-Inglewood, Compton Thrust, Palos Verdes, Elysian Park Thrust, and Whittier Faults) could produce significant ground-shaking at the project site. Therefore, similar to development throughout southern California, implementation of the proposed project will result in exposure of the on-site residents and employees to a degree of seismic hazard risk. Other potential impacts associated with seismic activities that could occur on the site include liquefaction. However, the project will be constructed in accordance with California Building Code and Municipal Code requirements, and will be required to prepare geotechnical studies for each building on the project site in accordance with the CGS *Special Bulletin 117, Guidelines for Evaluating and Mitigating Seismic Hazards in California*. With implementation of these regulatory requirements, project impacts associated with the exposure of on-site populations, property, or structures to seismic hazards will be less than significant.

**Mitigation:** The following mitigation measures are recommended to ensure that potential seismic-related impacts will be less than significant:

- V.D-1      In accordance with the City of Long Beach Municipal Code and the Lakewood Municipal Code, the Applicant shall prepare a geotechnical study specific to each building to be constructed as part of the project as well as to the specific site within the project site proposed to be developed. The geotechnical study shall evaluate seismic hazards, including the potential for liquefaction, to a level of

detail sufficient to satisfy the California Department of Conservation, California Geological Survey, the California Building Code, and the UBC.

- V.D-2      Grading plans shall be designed such that the final grades on-site are compatible with the grades of the adjacent streetscape to prevent soil erosion from flowing off-site.

**Level of Significance After Mitigation:** With implementation of the mitigation measures, impacts associated with grading, site design, and seismicity will be less than significant.

**Cumulative Impacts:** The simultaneous development of the PacifiCenter project and related projects will not result in cumulatively significant impacts associated with grading and site design, or seismic hazards since each project will comply with the California Building Code, UBC, and Municipal Code requirements for grading and local building regulations; project-specific geotechnical recommendations by certified geologists and geotechnical engineers; and the measures set forth in Section V.E., Hazards and Hazardous Materials, of the EIR and in the Risk Management Plan.

## **E. HAZARDS AND HAZARDOUS MATERIALS**

**Impacts:** Due to the types of historic and current uses at the site, and the age of the existing buildings, certain potential hazards have been identified that may affect the phased redevelopment of the project site, including asbestos, lead-based paint, underground storage tanks, seismic hazards, remediation of contaminated groundwater and soils, and hazardous material storage, use and transport. Gas and oil wells are also located in the project area. In addition, potential aviation related hazards are present in the area due to the proximity of the Airport.

In accordance with SCAQMD Rule 1403 and federal regulations applicable to demolition activities, pre-demolition building surveys must be performed to identify regulated asbestos-containing building materials (ACBM) and such materials must generally be removed prior to building demolition by certified asbestos containment contractors. Compliance with legal requirements for this ongoing ACBM abatement and related demolition work will continue to assure that Boeing employees elsewhere in the facility, and members of the public living or visiting nearby, will not be exposed to any airborne asbestos hazard.

Lead-based paint will be treated in accordance with CCR Title 8, Section 1532.1, which provides for exposure limits, exposure monitoring, and respiratory protection and mandates good working practices by workers exposed to lead. Lead-contaminated debris and other wastes must also be managed and disposed of in accordance with applicable provisions of the California Health and Safety Code. Compliance with these legal requirements will continue to assure that Boeing employees elsewhere in the facility, workers and occupants of the PacifiCenter project, and members of the public living or visiting nearby, will not be exposed to any hazards associated with lead-based paint debris and materials.

Both of the USTs that remain on site will be removed either prior to or in conjunction with the demolition work for the former industrial areas of the project site. These USTs as well as any previously unidentified USTs that may be encountered during the ACER program will be removed in accordance with applicable Federal, State, and the Long Beach Fire Department regulatory requirements. Therefore, no significant impacts associated with USTs will occur as a result of the project.

During construction and operation of the PacifiCenter project, hazardous materials will be used, handled, stored, and disposed of in accordance with applicable government regulations and standards. In addition, a Risk Management Plan (RMP) will be developed by the Applicant to assure that such measures are fully protective of the health and safety of new residents and employees at PacifiCenter.

The closest oil field to the project is the Long Beach Airport Oil Field located approximately 0.2 mile southwest of the site and the nearest oil well is located over 0.3 mile southwest of the site. Due to this distance, the Long Beach Airport Oil Field and oil wells in the vicinity of the project will not pose a hazard to the project site. Also due to this distance, the potential for migration of methane from the Long Beach Airport Oil Field to the project site in quantities sufficient to present a potential hazard at the site is considered minimal.

In coordination with LARWQCB, Boeing is implementing an ongoing comprehensive environmental assessment and remediation program to clean up historic chemical releases to soil and groundwater from former industrial activities on the project site. This remediation program is mandated by LARWQCB Order and must be completed independent of the ultimate redevelopment of the project site. Former industrial buildings and ancillary structures are being demolished and shallow soils are being remediated, where necessary in accordance with the LARWQCB requirements. This component of site remediation program is being completed in phases that have been identified in the ACER program approved as part of the ongoing remediation work required under the

LARWQCB Order. As discussed in Section V.E, Hazards, regulatory approval for “No Further Action” (NFA) and closure for soils in areas representing approximately 80 percent of the site has been received from the LARWQCB and regulatory approval of NFA for soils in the remaining areas of the site is expected shortly. LARWQCB verification of the completion of the required components of remediation work is required before the Applicant obtains permits to construct new buildings as part of the project. It is anticipated that potential groundwater remediation efforts will occur over a longer period of time due to the geologic and technical constraints associated with groundwater remediation programs. This ongoing activity will necessitate the installation of subsurface and limited surface cleanup equipment and structures. This cleanup related equipment will not affect or be accessible to new residents or employees at PacifiCenter.

With regard to Airport safety, the PacifiCenter project has been specifically designed in conformance with the Federal Aviation Administration (FAA) safety requirements set forth in Federal Aviation Regulations (FAR) Part 77, and with the Los Angeles County Comprehensive Airport Land Use Plan (ALUP) safety policies. As discussed in the Report on Potential Hazards Related to the Long Beach Airport Operations presented in Appendix J, to evaluate potential safety impacts to persons on the ground, the Caltrans Handbook was used as the primary reference as it provides the most up-to-date, comprehensive source for compatibility assessment. Most of the uses proposed as part of the PacifiCenter project will be compatible with the safety zone guidelines identified within the Caltrans Handbook. In addition, when accounting for several factors including the current and future operations of the Airport, and with implementation of the mitigation measures provided herein, the project will not result in a significant impact associated with the risk exposure to aircraft operations that will cause a safety hazard for people residing or working in the PacifiCenter project area.

### **Mitigation**

In addition to the proposed project features, the following mitigation measures are recommended to ensure that project impacts relative to hazards and hazardous materials are less than significant:

- V.E-1      Prior to constructing new buildings in an Environmental Investigation Area (EIA), obtain LARWQCB confirmation that the required demolition and soil remediation work has been completed as required by the ACER program, and that the EIA is suitable for redevelopment (LARWQCB Completion Notice).



- V.E.-2 Complete a Risk Management Plan (RMP), to remain in place and effective during the construction of new buildings and after project development, until the site has been remediated as required by the CAO, that includes the following:
- Develop and record all required environmental disclosures, covenants and restrictions relating to historical impacts to soil and groundwater, including residual conditions or restrictions that may remain in place in some areas during or after full implementation of the LARWQCB Order.
  - Develop and implement a consolidated Health and Safety Plan (HSP) for redevelopment construction workers that includes all required elements to assure worker protection in relation to soil and groundwater conditions on the project site. Provide the RMP, including this HSP, to construction contractors and sub-contractors and require compliance with the HSP in all construction contracts that include work scopes likely to require contact with subsurface soils or groundwater.
  - On EIAs for which there has been no LARWQCB Completion Notice as of the commencement of redevelopment construction activities, limit access with adequate fencing or other barriers to protect new residents and employees at PacifiCenter. Identify and implement risk management measures within EIAs that are adjacent to or may otherwise affect completed redevelopment areas, including a routine inspection program to assure that such measures are being implemented.
  - On EIAs for which groundwater or deeper-soil remediation work is planned or ongoing as of the commencement of constructing new buildings, identify and implement risk management measures for the management of impacted soils and groundwater, and for the installation and operation of remediation equipment and processes, that are fully protective of the health and safety of the public and PacifiCenter residents and employees, including a routine inspection program to assure that such measures are being implemented. At minimum, such measures shall include compliance with all applicable federal, state and local laws and regulations.

- Identify and implement risk management measures for managing demolition debris, including debris containing asbestos materials or lead-based paints, to assure are fully protective of the health and safety of the public and PacifiCenter residents and employees, including a routine inspection program to assure that such measures are being implemented. At minimum, such measures shall include compliance with all applicable federal, state and local laws and regulations.
- Identify and implement accident prevention and control measures for demolition and remediation activities, and for ongoing operations within the Boeing Enclave, that are protective of the health and safety of the public and PacifiCenter residents and employees, including a routine inspection program to assure that such measures are being implemented. At minimum, such measures shall include compliance with all applicable federal, state and local laws and regulations.
- Identify and implement standards for imported soils and compaction materials to assure that such fill materials are fully protective of human health and the environment, and require contractors responsible for imported fill to meet these standards.
- Identify and implement project design features that may be used to minimize impacts to ongoing or planned remediation work in project area groundwater or soils, including, for example: (a) landscaping features that will not require excessive quantities of water thereby avoiding interference with groundwater areas requiring remediation; (b) building features that may minimize the potential for migration of soil vapors into occupied indoor areas; and (c) land plan elements that are consistent with planned longer-term remediation efforts.

The following mitigation measures are recommended to reduced project impacts relative to hazards to less-than-significant levels:

- V.E-3            In accordance with FAA requirements, prior to commencement of construction of any building, the construction sponsor shall file Form 7460-1, Notice of Proposed Construction or Alteration, with the appropriate regional FAA office for airspace review.

- V.E-4 Prior to execution of a “through-the-fence” agreement for a proposed aviation-related use, the proposal shall be submitted to the Airport for review and approval and the Airport will consult with the FAA.
- V.E-5 No building(s) shall be constructed in the Runway Protection Zones (RPZs) designated by the Airport Layout Plan.
- V.E-6 The following measures shall be implemented to reduce the risk of exposure to airport-related hazards associated with aircraft operations on Runway 16L/34R:
- Provide street alignment and landscaping along the extended runway centerline;
  - Locate automobile parking, in the commercial areas, adjacent to the extended runway centerline so as to reduce the building coverage in that area;
  - Utilize construction that would limit small aircraft penetration in the Inner Safety Zone and Inner Turning Zones;
  - Avoid concentrations of people near extended runway centerline and runway end by locating elements such as streets, setbacks, parking, and landscaping, near extended runway centerline and runway end;
  - Avoid concentrations of people that are not shielded by structure from aircraft penetration in the Inner Safety and Inner Turning zones by locating primarily buildings within the Inner Safety and Inner Turning zones rather than developing areas where people would congregate (i.e., amphitheaters, band stands); and
  - Comply with the Federal Aviation Regulations, Part 77 height limits.
- V.E-7 The following measures shall be implemented to reduce the risk of exposure to airport-related hazards associated with aircraft operations on Runway 25R/7L:
- Provide street alignment and automobile parking to reduce land coverage in areas nearest the runway operating areas;

- Utilize construction that would limit small aircraft penetration in the Inner Safety Zone and Inner Turning Zone;
- Avoid concentrations of people that are not shielded by structure from aircraft penetration in the Inner Safety Zone and Inner Turning Zones, by locating primarily buildings within the Inner Safety and Inner Turning zones rather than developing areas where people would congregate (i.e., amphitheaters, band stands); and
- Comply with the Federal Aviation Regulations, Part 77 height limits.

**Level of Significance After Mitigation:** With implementation of the project features and the recommended mitigation measures, impacts relative to hazards and hazardous materials will be less than significant.

**Cumulative Impacts:** Most of the facilities within the vicinity of the site that pose a potential threat are listed in the applicable databases as leaking UST sites. Two service stations have posed a potential impact on the site. One is being remediated by the previous property owner, who remains responsible for such remediation. Disposition of this property to Boeing Realty Corporation or other development entity may be completed as part of the project. As with other remediation efforts, any contamination will be remediated to levels that present no significant human health risk for future uses, in accordance with the appropriate regulatory agency. Records relating to the second site show that eight USTs have been removed from the site, with no indication of soil or groundwater contamination, and the Long Beach Fire Department granted closure of the site. There are also several other sites in the area that have had chemical releases that have impacted the groundwater and could have impacted the PacifiCenter site. To the extent that these off-site properties could have impacted the PacifiCenter site, the separate and ongoing on-site remediation program is designed to address and remedy these off-site sources of potential hazards or hazardous materials.

Boeing has implemented a comprehensive environmental assessment and remediation program for the project site. These efforts are being coordinated with LARWQCB and will occur regardless of whether the PacifiCenter project occurs. The remediation program is the only ongoing or future planned significant remediation project in the immediate vicinity of the project site that will involve the handling of significant quantities of hazardous wastes and materials. Regardless, any future development in the vicinity, including nearby related projects (Related Project Nos. 6, 12, 77, 82, 85, 86, etc.) will also be subject to a wide range of Federal, State, and local regulations pertaining to

hazards and hazardous materials, which will assure that there will be no adverse impacts from such projects to the PacifiCenter site. Moreover, development of the PacifiCenter project, including implementation of the project features and mitigation measures proposed as part of the project, will not add incrementally to a cumulative impact relative to hazards and hazardous materials. The ongoing remediation program required by the Cleanup and Abatement Order will result in a substantial net benefit to soil and groundwater quality, and the RMP (discussed below) will further ensure the health and safety of the site's future residents and employees during the phased redevelopment and remediation of the site. As such, cumulatively significant impacts associated with hazards and hazardous materials will not result from implementation of the project.

As it relates to airport safety issues, the proposed Airport improvements (Related Project No. 77), which involve 43,000 square feet of building improvements, and a 4,000 space parking garage, can be reasonably expected to provide the same level of safety as exists currently in accordance with FAA safety regulations, the Los Angeles County ALUP, and Caltrans Handbook guidance. As discussed above, PacifiCenter has been designed in conformance with relevant FAA and ALUP regulations. Additionally, as discussed in Appendix J, when accounting for current and future operations at the Airport (which is projected to accommodate projected growth to 3.8 million annual passengers), and with implementation of the project mitigation measures provided below, a significant impact associated with the risk of exposure to aircraft operations causing a safety hazard for people residing or working in the PacifiCenter project area will not occur. Cumulative safety impacts will be less than significant.

## F. HYDROLOGY

**Impacts:** The project will include the introduction of landscaped areas that will increase the amount of pervious surface area within the project site. As such, when compared with recent conditions on the site prior to the initiation of demolition activities associated with the remediation program in January 2003 within a portion of the site, the project will result in a decrease in the amount of stormwater runoff generated on-site, resulting in a beneficial impact. In addition, improvements to the existing storm drain system proposed as part of the project will result in a beneficial impact as such improvements will replace the aging system that currently serves the project site. In addition, the project will not substantially increase the rate or amount of surface runoff in a manner that will result in substantial erosion or siltation on- or off-site or in flooding on- or off-site. However, since the existing downstream double RCB culverts are not adequate for existing or project storm flows, the project will contribute runoff water that will exceed the capacity of existing and planned stormwater drainage systems. Despite the reduction in stormwater flows under the project, similar to existing conditions, the excess site-

generated runoff that cannot be accommodated by the double culverts will flow over land to the Airport property to the south, then easterly to Lakewood Boulevard. Thus, a significant hydrology impact will occur.

The Flood Insurance Rate Map prepared by FEMA currently indicates that a portion of the project site is located within the 100-year floodplain. However it has been determined that this mapping is incorrect and, as a result a Conditional Letter of Map Revision (CLOMR) is currently being considered to remove this portion of the project site from the map. Therefore, no significant impacts associated with the placement of housing or structures within a 100-year floodplain will occur.

### **Mitigation**

Development of the proposed project will result in significant hydrology impacts. Thus, the following mitigation measures will be required:

- V.F-1      On-site drainage system improvements shall be completed in accordance with the requirements of the City of Long Beach Department of Public Works and the City of Lakewood Department of Public Works and shall be coordinated with PacifiCenter development and on-site street improvements.
- V.F-2      All new on-site storm drains, with the exception of the RCB drain along the southern site boundary, shall be sized to convey a 25-year storm event with the street right-of-ways accommodating a 50-year storm event.<sup>8</sup>

**Level of Significance After Mitigation:** Although the project will result in a net reduction in flows in the area, the existing double RCB culverts under Lakewood Boulevard are not adequate for the storm flows generated from the project site, as is the case with existing flows to these RCBs. Given the size and length of these facilities, measures to mitigate the capacity shortage are infeasible. Therefore, a significant and unavoidable impact relative to hydrology will occur.

**Cumulative Impacts:** The geographic area for the cumulative analysis of hydrologic impacts is defined as the 1,521-acre watershed in which the project site is located. The area that encompasses this watershed is built out. Approximately seven

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<sup>8</sup> *Except in a sump condition, in which drain(s) will be designed to convey a 50-year storm event.*

related projects (Related Project Nos. 6, 12, 44, 50, 57, 61, and 75) are located within the watershed. No land use changes that will substantially increase the amount of impervious surface are expected, as any changes in land uses associated with the related projects will consist of redevelopment of previously developed sites. Although the project will decrease the amount of runoff originating from the PacifiCenter site when compared with recent conditions, site-generated runoff will continue to exceed the capacity of the double RCB culverts under Lakewood Boulevard, and a significant project impact will occur. Any of the related projects located within the 1,521-acre watershed could also generate stormwater flows that contribute to the capacity shortage of the double RCB culverts. As such, implementation of the proposed project in combination with the related projects will result in a significant cumulative impact.

## **G. WATER QUALITY**

**Impacts:** There are no surface water bodies or wetlands located on the project site. The project site is located within the Los Angeles River Watershed. In addition, underlying the project site and vicinity are sediments within the Central Groundwater Basin that extend to depths of over 1,250 feet below land surfaces forming a sequence of aquitards and aquifers.

### **Construction**

#### **Surface Water**

Grading activities associated with project construction will temporarily increase the amount of suspended solids from surface flows derived from the project site during a storm event due to erosion of exposed soil. In addition, due to on-site watering activities utilized to reduce airborne dust, construction could contribute marginally to increased sediment loading of surface runoff during dry weather conditions. National Pollution Discharge Elimination System (NPDES) permits will be obtained during construction as part of the mass grading and backbone infrastructure, and as part of the specific development site construction activities. These permits will require that Stormwater Pollution Prevention Plans (SWPPPs) be developed and implemented. The SWPPPs will include Best Management Practices (BMPs) and erosion control measures. With implementation of NPDES and local regulations, proposed construction activities will not degrade the surface water quality of receiving waters to levels below standards considered acceptable by the LARWQB or other regulatory agencies or impair the beneficial uses of the receiving waters. In addition, construction of the project will not result in a violation of any water quality standards or waste discharge requirements and will not otherwise

substantially degrade water quality. Therefore, construction-related impacts to surface water quality will be less than significant.

### **Groundwater**

Construction activities could require excavation of up to 20 feet below ground surface during removal of existing foundations and during pile driving activities. Implementation of these construction activities could involve dewatering. Short-term NPDES permits for discharge of groundwater to the storm drain will be obtained for construction dewatering, if necessary. The project will comply with all permit requirements during these activities. As such, implementation of construction activities as a result of the proposed project will not degrade groundwater quality, and impacts will be less than significant.

### **Operation**

#### **Surface Water**

The Boeing Enclave facility will continue to operate for a number of years as the PacifiCenter site is developed and will continue to generate fuel, solvents, coatings, hydraulic fluids and oils. This facility will continue to operate under the storm water monitoring program developed for its current NPDES wastewater discharge permit number 6116. The operation of the PacifiCenter project will not interfere with those requirements. Operation of the proposed project will produce pollutants typically associated with urban uses, such as oil and grease, metals, fertilizers, pesticides, dirt from landscaped areas, and litter. Constituents in the project's post-development runoff will be significantly less than existing conditions due to the reduction in industrial use of the PacifiCenter site and the proposed stormwater treatment system. In addition, the Applicant and subsequent property owners will be required to comply with the Standard Urban Stormwater Mitigation Plan (SUSMP) requirements during the operational life of the project. Such requirements will include source control BMPs, treatment control BMPs, requirements regarding erosion control, and BMP maintenance. As part of these requirements, post-construction structural or treatment control BMPs designed to infiltrate or treat the volume of runoff produced from a 0.75-inch storm event prior to its discharge to a storm water conveyance system will also be implemented. Therefore, runoff contaminants generated by the operation of the PacifiCenter project will not violate any water quality standards or waste discharge requirements, impair the quality of receiving surface waters, impair the beneficial uses of the receiving waters, or otherwise substantially degrade water quality. Thus, impacts to surface water quality associated with operation of the project will be less than significant.



## **Groundwater**

Implementation of the PacifiCenter project will generate a demand for water that will include the use of municipal groundwater supplies, potentially including groundwater from the active groundwater wells located within a one-mile radius of the project site. However, the City of Long Beach Water Department has indicated that adequate water supplies exist. In addition, project components will not involve the installation of groundwater production wells. Moreover, the reduction in impervious area, when compared with historic and recent site conditions, will increase the groundwater recharge potential from storm water infiltration. As such, the operation of the PacifiCenter project will not substantially deplete groundwater resources or interfere substantially with groundwater recharge such that there will be a net deficit in aquifer volume or a lowering of the local groundwater table level and impacts will be less than significant.

## **Mitigation**

Although the project will not result in significant impacts associated with the degradation of surface water quality and groundwater quality, the following mitigation measures are provided to ensure that construction and operation of the PacifiCenter project will comply with applicable water quality regulations.

- V.G-1      In accordance with the federal NPDES program, construction of the PacifiCenter project shall comply with NPDES permit requirements for water discharged during mass grading and backbone infrastructure construction activities. As part of these requirements, a SWPPP and monitoring plan shall be developed and implemented that shall identify appropriate BMPs to reduce and/or to eliminate pollutant loadings to storm water runoff.
  
- V.G-2      The various separate development sites within the PacifiCenter property shall be required to secure a separate NPDES construction permit and prepare a site-specific SWPPP as they are developed. Each individual development shall provide storm water controls prior to issuance of a building permit by the appropriate department of the Cities of Long Beach and Lakewood. Development on sites that are greater than one acre shall file an approved SWPPP plan with the respective City and the LARWQCB.
  
- V.G-3      In accordance with RWQCB requirements and local regulations, a Standard Urban Storm Water Mitigation Plan (SUSMP) (or separate SUSMPs) shall be developed and implemented during the

operational life of the project. The SUSMP requirements shall include post construction structural or treatment control BMPs designed to mitigate (infiltrate or treat) the volume of runoff produced from a 0.75-inch storm event prior to its discharge to a storm water conveyance system. Part of the SUSMP requirements to be implemented shall include provisions for storm drain stenciling and signage<sup>9</sup>, the proper designation of outdoor material storage areas, and provisions for proof of ongoing BMP maintenance. For facilities located within the public right-of-way, a maintenance agreement between the applicant and the appropriate City shall be developed, and Covenants, Conditions, and Restrictions (CC&Rs) shall be developed for private water quality controls.

**Level of Significance After Mitigation:** With incorporation of mitigation measures to ensure compliance with water quality regulations and implementation of the project features regarding water quality, the project will not degrade the surface water quality of receiving waters to levels below standards considered acceptable by the LARWQCB or other regulatory agencies, impair the beneficial uses of the receiving waters, violate any water quality standards or waste discharge requirements, degrade the groundwater quality to levels below standards considered acceptable by the LARWQCB or other regulatory agencies or substantially deplete groundwater supplies, or interfere substantially with groundwater recharge.

**Cumulative Impacts:** The geographic area for the cumulative analysis for surface water quality is defined as the 1,521-acre watershed area, and for groundwater quality is defined as the Central Groundwater Basin. The 1,521-acre watershed area and the area overlying the Central Groundwater Basin are primarily developed and the new development will generally consist of the redevelopment of previously developed sites. New development that may occur within these areas will not substantially alter the runoff and pollutant loading characteristics of existing development. In addition, groundwater remediation efforts, such as the ongoing soil and groundwater remediation program (Related Project No. 44) at the PacifiCenter site, that are planned or underway throughout the Basin will ultimately have a beneficial impact on groundwater quality. Similar to the proposed project, any related projects will be subject to NPDES permit requirements and RWQCB regulations. Thus, such related projects will not contribute to cumulative impacts. With incorporation of project features and compliance with all applicable federal, State, and local regulations associated with surface water quality and groundwater quality, the proposed project will not contribute to cumulatively significant impacts.

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<sup>9</sup> *With regard to stenciling, the City of Long Beach requires that the contractor/developer use the City's Standard Plan Non 636, "Catch Basin Stencil."*

## H. LAND USE AND PLANNING

**Impacts:** The project site is located within the jurisdiction of the Cities of Long Beach and Lakewood. The site is within an urban area and is surrounded by a variety of land uses, including aviation, office, industrial, recreation, residential, and educational uses. In recent years the occupancy of the site's five million square feet of permitted useable floor has dropped dramatically as a result of the decline in the aerospace industry. In addition, demolition activities are currently underway in conjunction with a mandated soil and groundwater remediation program and will result in the removal of much of the on-site development. Most of the remaining occupied area of the site is located within the western 48-acre portion of the site immediately adjacent to the Airport, which is referred to as the Boeing Enclave.

All of the proposed uses will not be fully consistent with the existing land use designations of the site. Text amendments are proposed to LUD No. 7 to clarify that residential uses may be appropriate with industrial development under certain circumstances. Amendments are also proposed to the Land Use map to change the LUD 12 designation in the southern portion of the site to LUD 7. Graphics and text amendments regarding the Long Beach Airport Activity Center are also proposed to more accurately reflect existing conditions and to allow a greater mix of uses. A Development Agreement is also proposed for the project.

The PacifiCenter project, including the mix and intensity of uses, will be consistent with the applicable goals and objectives set forth in the amended Land Use Element of the City of Long Beach General Plan as well as the goals and action steps in the City's Strategic Plan 2010. The project will create an activity center on the site through the proposed mix and intensity of uses and will create a place where a concentration of urban activity will exist in support of the City's goals. The proposed R&D, light industrial, residential, retail, hotel, office, and aviation-related and ancillary uses will result in a unique character and interest on the project site consistent with the objectives for creating a major activity center.

The proposed Planned Development (PD) -32 ordinance will establish development standards for the use and development of the project site as proposed. With the adoption of the proposed PD-32 ordinance and the rezoning of the site from PD-19 to PD-32 Zone the project will be consistent with the City of Long Beach Zoning Ordinance.

With regard to the portion of the site within the City of Lakewood, the project will comply with the City's General Plan and Redevelopment Project Area III Plan since the project will result in the redevelopment of the 23 acres within the City of Lakewood. Such

redevelopment will eliminate conditions of blight and deterioration, encourage new private sector investment, create new job opportunities, and facilitate the installation and expansion of required public infrastructure, utilities, streets, and landscaping, in accordance with the goals of the Redevelopment Plan. The project will comply with the City's Zoning Ordinance with regard to uses and development standards. A Conditional Use Permit may be required if a park is located within the City of Lakewood. As such, the project will comply with the City of Lakewood policies and ordinances.

The proposed project will be consistent with the Airport layout plan and the County Comprehensive Land Use Plan. Specifically, the proposed project will comply with the County's Land Use Compatibility Table, the RPZ zones and the FAA regulations regarding height limits.

The proposed project will be consistent with the Metropolitan Transportation Authority Congestion Management Plan for Los Angeles County through the implementation of the proposed TDM program that will serve to reduce project trips affecting the regional circulation system. In addition, the PacifiCenter project is supportive of the concepts and policies contained within the Southern California Association of Governments Regional Comprehensive Plan and Guide by transforming the project site into an activity center and sustainable community. As discussed in Section V.B, Air Quality, the project will also be consistent with the South Coast Air Quality Management District Air Quality Management Plan. Therefore, the proposed project will be consistent with regional land use policies.

The PacifiCenter project will be compatible with the surrounding land uses due to the proposed placement and orientation of the uses on the site. The location of housing along Carson Street will be compatible with the residential and recreational uses to the north and northwest. The location of Commercial uses adjacent to Lakewood Boulevard will be compatible with the existing commercial and industrial uses to the east across Lakewood Boulevard. The Commercial land use area which abuts the Lakewood Country Club Golf Course to the west will be compatible with this open space use in light of the proposed setbacks, maximum building heights, and the building restriction zone which encompasses much of this area. Similarly, the Commercial land uses along the southern portion of the site will be compatible with the adjacent Airport land use based on the uses, building height limitations, and densities proposed within this area of the site, as well as compliance with building restriction zones. Therefore, the project will not create an incompatible interface between the surrounding area and the physical and/or operational characteristics of the proposed uses.

The uses are also distributed on the site to provide internal on-site compatibility through the orientation and placement of buildings, the distances between structures, and the buffers created by streets and landscaping. Residential uses will be buffered from non-residential uses on-site both physically and with setbacks. The project, therefore, will not result in land uses that are internally incompatible.

### **Mitigation**

To ensure that land use impacts are reduced to a level of less than significant, the following mitigation measures are recommended relative to land use:

- V.H-1        Uses within the project site shall be limited to those set forth by the Planned Development-32 District for the City of Long Beach portion of the site and by the M-2 Zone for the City of Lakewood portion of the site.
- V.H-2        Warehouse uses shall not abut residential uses and shall be limited to the PCC-1 and PCC-2 Commercial Use area as an accessory use within the City of Long Beach. Such uses shall be dependent upon the principal use for the majority of its use or activity.
- V.H-3        Amendments to the City of Long Beach Land Use Element and map as well as the zoning for the site shall be approved prior to project approval.

Mitigation measures in Section V.A, Aesthetics are also proposed to mitigate potential land use impacts. These measures include V.A-1 through V.A-5, and V.A-8 through V.A-11. In addition, mitigation measures V.I-14 and V.I-17, listed in Section V.I, Noise, are also proposed to mitigate potential land use impacts.

**Level of Significance After Mitigation:** Significant and unavoidable impacts relative to project consistency with applicable land use regulations and land use compatibility will not occur with the incorporation of the Project Features and mitigation measures.

**Cumulative Impacts:** The geographic area for the cumulative analysis of land use includes the Cities of Long Beach, Lakewood, and Signal Hill. In general, the local and regional land use plans discussed above recognize the need for redevelopment of many of the older industrial and commercial areas within the Cities of Long Beach and Lakewood. Like the proposed project, the related projects are expected to be developed

in accordance with relevant land use plans and regulations. In addition, each of these projects that involve some form of discretionary action by the applicable local agency will be subject to the project and permit approval process and will incorporate any mitigation measures necessary to reduce potential land use impacts. Consequently, significant cumulative land use impacts will not occur.

## **I. NOISE**

### **Noise**

**Impacts:** The project site and nearby vicinity are primarily exposed to noise generated by traffic on the surrounding roadways and freeways, noise generated by operations at the Airport including aircraft takeoffs and landings, noise generated by engine testing at Boeing's engine run-up area and noise generated by the separate and ongoing remediation efforts pursuant to the LARWQCB Cleanup and Abatement Order 95-048.

Existing  $L_{eq}$  levels at the receptor locations adjacent to roadways in the vicinity of the project site range from 68.0 to 75.1 dBA during the peak traffic hours, and from 64.0 to 73.5 dBA during the off-peak hours.

The project site and surrounding vicinity will be exposed to noise generated by intermittent construction activities associated with the proposed project and vehicular traffic from the project. On-site uses may also be exposed to noise impacts from the proposed 66 kV substation.

The residences located to the north of the project site along Carson will occasionally experience construction noise levels of 70 dBA (hourly  $L_{eq}$ ) during the heaviest periods of construction. If pile driving is required in the northern section of the project site along Carson Street, nearby residences could experience maximum noise levels of 84 dBA. As the worst-case hourly  $L_{eq}$  exceeds ambient noise levels by more than the 5 dBA incremental significance threshold, construction of the proposed project will result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity and a significant impact to off-site sensitive receptors without incorporation of mitigation measures.

Since proposed residential areas may be constructed prior to project buildout, on-site sensitive receptors could be located as close as 75 feet from a construction zone and will therefore occasionally experience construction noise levels as high as 83 dBA. If

pile driving is required on-site, sensitive receptors could experience maximum noise levels of 98 dBA. These noise levels will be considerably higher than ambient noise levels. As the worst-case hourly  $L_{eq}$  will be more than the 5 dBA incremental significance threshold, the proposed project will result in a significant impact to proposed on-site sensitive receptors without incorporation of mitigation measures. However, such noise levels will be experienced for short-durations as only portions of the project site will be under construction at any one time.

Compared with the future without project conditions, the increase in future predicted CNEL with ambient growth plus project development and all traffic mitigation will be a maximum of 4.3 dBA for all off-site roadway segments and will be less than the 5 dBA significance threshold, with the exception of Conant Street east of Lakewood Boulevard (Roadway Segment No. 8), which will increase by 7.0 dBA. This roadway segment is bordered by parking facilities and the Boeing 717 Assembly Facility. While noise levels associated with project traffic at this roadway segment will result in a significant and unavoidable impact, no sensitive receptors will be impacted. In addition, increased heavy duty truck trips associated with potential warehouse uses as accessory uses will not create significant impacts or significantly exacerbate the impact at Conant Street east of Lakewood Boulevard. An additional analysis was completed for A Street located within the western portion of the site as this street may be located farther to the north and adjacent to the Lakewood Country Club Golf Course (in the vicinity of where Cover Street is currently located). Given the low level of traffic that currently travels on this segment, mobile noise levels were predicted to increase by 18.7 dBA. However, this roadway segment is bound by the Airport to the south and a golf course to the north, and, therefore no sensitive residential receptors will be impacted. Nonetheless, noise levels associated with project traffic at this roadway segment will result in a significant and unavoidable impact.

Residential uses and associated outdoor recreational areas proposed within the PacifiCenter site will be outside of the 65 CNEL contour produced by landing and takeoff activity at the Airport, which is based on the future maximum-expected operating scenario allowed by LBMC Chapter 16.43. Therefore, with incorporation of project features to reduce noise levels at residential uses, noise impacts from airport operations upon "incompatible" land uses such as residential development and associated outdoor recreational areas will be less than significant since these uses will be exposed to appreciably lower noise levels cited by California Code of Regulations Title 21, FAA Guidelines and LBMC policy.

While the MD-80 and A-320 commercial jet departures are the most common air carrier departure operations, other aircraft will generally produce less noise, while some

may on occasion be louder. The SENEL exposure for the proposed residential uses within PacifiCenter located closest to the Airport from the louder typical MD-80 departure could be as high as 90 SENEL, which with typical residential outside-to-inside modern construction noise insulation will yield an internal 65 SENEL. Although there is no established significance threshold for SENEL, the low probability of awakening from a typical MD-80 departure coupled with the fact that the Airport has a curfew, indicates a low possibility of such sleep disruption.

Noise levels associated with operation of the on-site aviation-related uses will comply with LBMC requirements and will be less than significant.

Boeing will continue to conduct engine run-up tests for newly manufactured C-17 and 717 aircraft in the Boeing Enclave. Based on the maximum noise levels measured during C-17 and 717 engine run-up tests, and the distance of the proposed residential uses, maximum noise levels from the C-17 and 717 will be 83 dBA ( $L_{max}$ ) and 88 dBA ( $L_{max}$ ), respectively. Based upon the specified noise insulation that will be required for the proposed residential buildings, the maximum internal noise level in a residential unit attributable to the C-17 and 717 will be approximately 58 dBA ( $L_{max}$ ) and 63 dBA, respectively. This is a relatively low noise level that will not be expected to significantly interfere with typical speech communication or activities taking place indoors. Given the relative infrequency of these engine run-up tests, together with the fact that the associated single event noise levels measured for the C-17 and 717 are less than that generated by a typical MD-80 departure, it is reasonable to rely upon the published CNEL contours for the Airport in order to assess the potential noise impact upon the residential components of the PacifiCenter project. Therefore, as residential development and associated outdoor recreational areas will not be located within the 65 CNEL contour, no significant impact will occur from the Boeing engine run-up tests.

Operation of the proposed 66-kV substation will not have significant noise impacts. Noise levels from other on-site activities, including the operation of mechanical equipment and use of parking facilities, will also be less than significant.

### **Vibration**

During construction, the highest vibration within the project site will be generated during pile driving operations, while more consistent, but lower ground, vibration will be generated during the clearing, excavation, and grading processes when heavy materials are moved. Both off-site and on-site sensitive land uses will be located at a sufficient distance (greater than 75 feet) from any potential pile driving activity so that vibration from such activities will be below the peak particle velocity threshold of 0.2 inch/sec. Therefore,



the project will not generate excessive groundbourne vibration or groundbourne noise levels and vibration impacts associated with construction will be less than significant.

Additional measurements of a Boeing 717 engine run-up test were conducted to determine if low frequency noise levels may cause structure borne vibration and secondary interior noise impacts from possible rattling of doors and windows. These measurements were conducted using the C-weighted scale, which is a better indicator of low-frequency noise as compared to the A-weighted scale. The results indicate that noise levels within the proposed residential uses north of the Boeing Enclave could reach levels of 81 dBC  $L_{eq}$  and 89 dBC  $L_{max}$ . A project feature has been incorporated to limit proposed residential uses within the area identified on Figure 54 of Section V.I, Noise of this EIR until the 717 engine run-ups cease. This feature will reduce the maximum C-weighted noise levels to less than 87 dBC. Areas outside this area will experience a noise level of less than 87 dBC. This feature, together with the requirement that all residential buildings on the project site have interior noise levels below 45 dBA CNEL will ensure that impacts associated with groundborne vibration or groundborne noise will be less than significant.

Operation of the project will not result in additional sources of vibration, which will exceed the City's vibration violation threshold of 0.01 inch/sec at adjacent properties. As such, operational impacts associated with vibration will be less than significant.

### **Mitigation**

The following mitigation measures are recommended to reduce noise and vibration impacts resulting from the proposed project. In addition to these mitigation measures, the project features will further reduce impacts associated with noise.

### **Construction**

- |       |   |
|-------|---|
| V.I-1 | In compliance with Section 8.80.202 of the LBMC, site preparation, grading, and construction within the City of Long Beach shall be limited to the hours of 7 A.M. and 7 P.M., Monday through Friday, 9 A.M. and 6 P.M. on Saturdays, and prohibited on Sundays.        |
| V.I-2 | In compliance with Section 8020 of the LMC, site preparation, grading, and construction within the City of Lakewood shall be limited to the hours of 7 A.M. and 7 P.M., Monday through Saturday and 9 A.M. and 7 P.M. on Sundays within 500 feet of a residential zone. |

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- |        |   |
|--------|---|
| V.I-3  | All construction equipment, fixed or mobile, shall be equipped with properly operating and maintained muffler exhaust systems.  |
| V.I-4  | The project applicant shall provide a construction relations officer to serve as a liaison with surrounding communities and future on-site residents.   |
| V.I-5  | Construction activities shall be scheduled so as to avoid operating several pieces of equipment simultaneously, which causes high noise levels.   |
| V.I-6  | Engine idling from construction equipment such as dozers and haul trucks shall be limited, to the extent feasible.  |
| V.I-7  | Equipment and materials staging shall be located as far from noise-sensitive uses as practical.   |
| V.I-8  | Semi-stationary heavy equipment shall be located as far from noise-sensitive uses as practical.   |
| V.I-9  | Electrically powered equipment shall be used instead of equipment driven by internal combustion engines where feasible.   |
| V.I-10 | Active construction sites within 400 feet of on-site occupied residential uses shall be acoustically screened with a temporary ten-foot, ½ inch thick plywood fence around the construction zone, to the extent feasible. The plywood fence will have an approximate sound transmission classification level of 18. |
| V.I-11 | An on-site area shall be designated for delivery of materials and equipment. No construction deliveries shall be permitted outside the hours of 7 A.M. and 10 P.M. on weekdays.   |
| V.I-12 | Pile shields (i.e., sound blankets) shall be used where pile driving activities occur within 200 feet from the northern property boundary along Carson Street or within 400 feet of on-site residential uses on the project site.   |
| V.I-13 | Construction routes will be established to avoid residential streets in order to prevent noise and vibration impacts in residential areas. Generally, construction delivery and haul trucks will access the   |

project site from I-405 along Lakewood Boulevard and Cherry Boulevard.

## Operation

- V.I-14 The residential developer shall provide insulation for all residential buildings on the project site to reduce interior noise levels below 45 dBA CNEL with doors and windows closed and shall provide confirmation of this noise level through an acoustical consultant. In addition, any residential development within the delineated residential area (i.e., hatched area) provided in Figure 54 of this EIR shall require a minimum outside-to-inside noise insulation of 30 dBA and shall appoint an acoustical consultant to confirm that the proposed residential buildings will achieve this design standard before submitting an application for a building permit.<sup>10</sup>
- V.I-15 All persons purchasing, leasing, or renting residential land or property within the PacifiCenter development shall be required to sign an “acknowledgement covenant” which acknowledges the fact that residential properties are near an airport, that there may be low level aircraft overflights, and that there may be noise impacts because of proximity to the Airport and overflights. In addition, the acknowledgment covenant shall acknowledge the aviation easements, which waive the right to take legal action in connection with aircraft noise.
- V.I-16 Aircraft related to new aviation-related uses proposed within the project site shall comply with requirements in LBMC Chapter 16.43.030(B) which limits engine run-ups to designated areas at the Airport and between the hours of 7 A.M. and 9 P.M. on weekdays and 9 A.M. and 9 P.M. on weekends and holidays.
- V.I-17 Development of residential uses in close proximity to the Boeing Enclave shall be prohibited until such time that 717 run-up activities permanently cease. The delineation of this area is provided in Figure 54 of this EIR.

<sup>10</sup> As discussed previously, the California Airport Land Use Handbook documents that this level of sound insulation may include the following: 1) air-conditioning/mechanical ventilation such that the units would not have to rely on open windows for ventilation; 2) ½-inch thick glazing, or a dual insulating glazed system comprised of ⅜-inch thick laminated glass/½-inch air space/¼-inch glass (or acoustical equivalent); 3) doors and windows opening to the exterior with acoustical seals; 4) adding insulation to attics; and/or 5) fitting chimneys and vents with dampers and/or acoustic louvers.

- V.I-18 Boeing shall preferentially use the testing positions along the southern side of the Boeing Enclave (Numbers 1-6), as shown in Figure 54 of this EIR
- V.I-19 The substation shall include an eight-foot high wall surrounding the substation area if it is to be located within a residential area.
- V.I-20 All mechanical equipment shall incorporate noise control measures to ensure that City of LBMC and LMC requirements are satisfied.

### **Level of Significance After Mitigation**

#### **Noise**

With implementation of the proposed mitigation measures, future construction operations are expected to generate noise levels at proposed residential areas in close proximity to the construction zone as high as 77 dBA Leq and will substantially reduce the pile driving short-term, impulsive noise level of 98 dBA by 10 to 15 dBA. These noise levels will be considerably higher than ambient noise levels. As the worst-case hourly Leq exceeds ambient noise levels by more than the 5 dBA incremental significance threshold, construction of the proposed project will result in a significant and unavoidable impact to proposed on-site sensitive receptors and off-site sensitive receptors (i.e., residential uses located along and north of Carson Street). However, such noise levels will be experienced for short-durations as only portions of the project site will be under construction at any one time. The majority of the time construction noise levels at on-site and off-site sensitive locations will be much lower due to reduced construction activity and the phasing of construction.

The increase in future traffic off-site noise associated with the project and all traffic mitigation will be less than significant for all roadway segments, with the exception of Conant Street east of Lakewood Boulevard, which will exceed the 5 dBA significance threshold. This roadway segment is bordered by parking facilities and the Boeing 717 Assembly Facility. While noise levels associated with project traffic at this roadway segment will result in a significant and unavoidable impact, no sensitive receptors will be impacted. If A Street is reconfigured in the western portion of the project site to be adjacent to the golf course, this segment will exceed the 5 dBA significance threshold. This noise increase is due to the fact that the roadway in this area does not currently support a large amount of traffic. Nonetheless, this noise increase will result in a significant and unavoidable impact.

Residential uses and associated outdoor recreational areas proposed within the PacifiCenter site will be outside of the 65 CNEL contour produced by landing and takeoff activities at the Airport, which are based upon the future worst-case operating scenario allowed by LBMC Chapter 16.43. Therefore, with incorporation of project features to reduce noise levels at residential uses, noise impacts from Airport operations upon such land uses will be less than significant since these uses will be exposed to lower noise levels than allowed by ALUP, California Code of Regulations Title 21, and FAA Guidelines.

With incorporation of MM V.I-14, the SENEL exposure for the proposed residential uses within PacifiCenter located closest to the Airport from the buder typical MD-80 departure of 90 SENEL, will be reduced to 60 SENEL with an outside-to-inside noise insulation of 30 dBA. A “satisfactory conversation” can be obtained with a steady sound level of up to 64 dBA. Therefore, an internal 60 SENEL during a typical MD-80 departure will not be problematic from a speech interference level. During outdoor activities aircraft operations may still briefly interfere with speech communication. In addition, helicopter and general aviation overflights may also be a source of annoyance to proposed sensitive receptors on the project site.

With incorporation of the project features associated with parking structures and surface parking areas, noise increases associated with operation of future parking facilities will be less than significant.

### **Vibration**

Future ground-borne vibration in the project vicinity will continue to be generated by heavy trucks traveling on the local roadways. Operation of the project with incorporation of project features and mitigation measures will not result in additional sources of vibration which will exceed the City’s vibration violation threshold of 0.01 inch/sec at adjacent properties. In addition, the project feature limiting proposed residential uses within the area identified in Figure 54 will reduce potential structural-borne vibration from the engine run-up testing in the Boeing Enclave to a less than significant impact. As such, operational impacts associated with vibration will be less than significant.

**Cumulative Impacts:** It is not anticipated that future construction and related demolition will occur on lots adjacent to the site simultaneously with construction of the proposed project. However, in the event that such simultaneous construction does occur, construction noise levels could be cumulatively significant at sensitive receptors, including single-family residences located along and north of Carson Street. In addition, project construction in certain areas of the site could potentially coincide with later phases of site demolition occurring as part of the ongoing soil and remediation program (Related Project

No. 44). Since receptors located immediately adjacent to the project site will occasionally experience project-related noise levels well above existing ambient noise levels and in the absence of City construction noise thresholds, this scenario will be considered to result in significant cumulative construction noise levels.

Compared with the existing conditions, cumulative increases in future predicted CNEL with ambient growth plus project development and all traffic mitigation will be a maximum of 4.6 dBA and will be less than significant for all off-site roadway segments, with the exception of Conant Street east of Lakewood Boulevard, which will increase by 8.3 dBA. While a significant cumulative impact at this roadway segment will occur, no sensitive receptors will be impacted. In addition, the noise levels generated by project operation together with future related projects and the ongoing separate remediation activities on the project site will result in less than significant cumulative noise impacts from facility operations.

## **J.1. EMPLOYMENT**

### **Impacts**

#### **Consistency with Policies**

Consistent with the definition of a Major Activity Center set forth by the City of Long Beach Land Use Element, the proposed project will concentrate a mix of uses on-site and transform the site into a vital economic activity center. The project will provide both jobs to restore an employment center and new residential units. As such, in accordance with City policies, the project's mixed-use nature will afford the regional benefits of reduced commute times and associated quality of life and environmental benefits that occur with the development of residential units within close proximity to jobs. In addition, the mix of uses developed on-site will provide substantial employment opportunities requiring varied skill sets, which will complement the residential element of the project site. The project's increase in employment opportunities and residential units in Long Beach will contribute toward the City's goal of providing at least 1.35 jobs for every household in the City.

The PacifiCenter project will include the development of office, R&D, and/or light industrial uses on property within the City of Lakewood, thereby implementing the intent of the Redevelopment Area III Plan. In addition, proposed development is consistent with the City of Lakewood's policy of creating industrial activity in a currently undeveloped area. Economic Development Goals are also satisfied by the addition of new employment on currently underutilized property.

Implementation of the PacifiCenter project will be also be consistent with the employment policies of the SCAG RCPG.

### **Consistency with Projections**

Development of the proposed project will create approximately 3,832 construction jobs. Assuming that the project is fully occupied by 2020 and that development occurs evenly over the construction period, construction employment associated with the project will constitute less than one percent of the annual countywide construction employment. As a result, anticipated construction employment at the PacifiCenter project site will not substantially alter the location, distribution, density or growth rate of construction employment in Los Angeles County. Therefore, significant impacts associated with construction employment will not occur.

Based on the most employee intensive scenario, implementation of the PacifiCenter project will be anticipated to result in a net increase of up to approximately 13,442 full time equivalent on-site employees by project buildout in 2020 when compared with existing conditions. The net increase in employees resulting from the project will be well within the projected employment growth for Long Beach, Lakewood, the Gateway Cities subregion, and the County of Los Angeles. Project implementation will serve to restore much of the employment lost at the PacifiCenter site and throughout the City of Long Beach since 1990. Therefore, workforce growth associated with the PacifiCenter project will not substantially alter the location, distribution, density, or growth rate of employment planned for the area by local and regional plans. As such, impacts associated with employment growth will be less than significant.

### **Mitigation**

No significant impacts associated with employment have been found, therefore no mitigation is required.

**Level of Significance After Mitigation:** No significant impacts related to employment will occur and no mitigation measures will be required.

**Cumulative Impacts:** The impact analysis provided above includes an assessment of project employment in comparison with local and regional growth forecasts which account for planned or reasonably foreseeable development within each jurisdiction in the local area and the region. Therefore, the analysis is both a project-level and cumulative analysis. As stated above, the net increase in employment associated with the

PacifiCenter project will be within the employment forecasts for the Cities of Long Beach and Lakewood, the Gateway Cities subregion, and Los Angeles County. Consequently, implementation of the project will not result in significant cumulative impacts associated with employment.

## **J.2. HOUSING**

**Impacts:** The addition of 2,500 new housing units is well within the SCAG housing growth projections for the City of Long Beach, accounting for approximately 9 percent of forecasted growth. As the project-related addition to the housing supply is well within official forecasted estimates for 2020, the addition of such housing will not substantially alter the location, distribution, density or growth rate of housing contemplated for the area by regional or local plans.

The "worst-case" estimate of average annual demand for housing by potential project employees wishing to move to the Long Beach/Lakewood area was also compared with the expected availability of housing. Using conservative assumptions (e.g., maximum employment assuming that nearly all commercial uses will be office uses), the potential indirect housing demand attributable to new project employees wishing to move locally is well within the housing supply expected to be available to such "movers" at that time. Therefore, indirect housing growth from the PacifiCenter project will not substantially alter the location, distribution, density or growth rate of housing contemplated for the area by regional or local plans.

The project will also be consistent with local and regional plans regarding housing. By creating new housing stock the PacifiCenter project will support applicable housing policies of SCAG's RCPG. The project will also help to relieve some of the existing and expected imbalance of housing units to population described in SCAG's "The State of the Region 2002" report. The new housing created by the project also supports the relevant Citywide goals and policies set forth by the 2000-2005 Housing Element of the Long Beach General Plan. Specifically, the provision of new housing within the City will facilitate the housing production goals set forth by City policy. In addition, the Applicant will contribute funds to the City for City-wide affordable housing programs and, in doing so, will assist with the City with regard to the City's affordability goals. Specifically, while the project itself will not directly provide affordable housing, in accordance with a development agreement, it will provide fees to the City that will be used to contribute to affordable housing of varying levels on a Citywide basis. The project will also provide a mix of rental and homeownership opportunities and a mix of housing products in response to a variety of market needs, in support of City policies. Refer to Section V.J.2 for a discussion of other City Housing policies that will be supported by the project.



## **Mitigation**

Based on the above analysis, no significant project-related impacts associated with alteration of the location, distribution, density, or growth rate of housing contemplated for the area by regional or local plans will occur. In addition, with implementation of the project feature regarding payment of a fee for affordable housing, no inconsistencies with relevant local or regional policies regarding housing will occur. Therefore, no mitigation measures will be required.

**Level of Significance After Mitigation:** No significant impacts associated with alteration of the location, distribution, density, or growth rate of housing will occur. Therefore, no mitigation measures will be required.

**Cumulative Impacts:** The impact analysis provided above includes assessments of the direct increase in new housing and the indirect increase in housing demand resulting from implementation of the PacifiCenter project in comparison with local and regional growth forecasts. Such forecasts account for planned or reasonably foreseeable development within each jurisdiction in the local area and the region. Therefore, the analysis is both a project-level and cumulative analysis. The net increase in housing associated with the project will be well within the household growth forecast for Long Beach and Los Angeles County. Similarly, the indirect increase in housing demand associated with PacifiCenter employment could be accommodated by projected housing supplies in Long Beach and Lakewood. Furthermore, the project will help to relieve a regional housing shortage that exists within southern California. Therefore, implementation of the project will not result in any significant cumulative impacts associated with housing.

## **J.3. POPULATION**

When including both direct population growth associated with new housing proposed by the project as well as indirect population growth associated with project employees who may move to the area, the project will generate up to 11,667 new residents within the Cities of Long Beach and Lakewood. (Up to 4,784 residents will be directly generated by the maximum of 2,500 housing units proposed on-site). This growth will be well within the SCAG forecasted growth for the Cities of Long Beach and Lakewood and Los Angeles County. As the additional population attributable to the project will not substantially alter the location, distribution, density, or growth rate of population planned and forecast in Long Beach, Lakewood or Los Angeles County, the proposed project will not result in a significant population impact.

## **Mitigation**

No significant impacts associated with population growth have been found, therefore no mitigation is required. However, as indicated in various sections of this EIR, the increase in population will result in impacts in other issue areas that require mitigation.

**Level of Significance After Mitigation:** No significant impacts will result from project implementation and no mitigation measures will be required. However, as indicated in various sections of this EIR, the increase in population will result in impacts in other issue areas.

**Cumulative Impacts:** The impact analysis provided in Section V.J.3., Population, includes an assessment of the population resulting from a direct increase in housing associated with the PacifiCenter project and induced population growth resulting from project development. As these estimated population increases were compared with local and regional growth forecasts, which account for planned or reasonably foreseeable development within each jurisdiction in the local area and the region, the analysis is both a project-level and cumulative analysis. The net population increase associated with the project will be well within the growth forecasts for Long Beach, Lakewood, and Los Angeles County. Therefore, implementation of the PacifiCenter project will not result in any significant cumulative impacts associated with population.

## **K.1. POLICE PROTECTION**

Police protection services for the City of Long Beach are provided by the City of Long Beach Police Department (LBPD), and for the City of Lakewood are provided by contractual agreement with the Los Angeles County Sheriff's Department (Sheriff's Department).

The PacifiCenter project will include security features, which are also included as mitigation measures, that will minimize the potential for crime on-site and the associated demand for additional police protection services.

Implementation of the project will result in an increase in residents and employees in the City of Long Beach portion of the project site, and daytime employees in the City of Lakewood portion of the project site. The estimated number of new residents in the City of Long Beach will require approximately nine new police officers, including two motorcycle officers and one sergeant, to maintain the current officer to population service ratio. Additional outlays will also be needed for equipment to support these officers. Revenue

generated by the project could be used to provide these additional officers. However, such a revenue allocation cannot be guaranteed. As such, if the project-generated revenue were allocated to other needed municipal purposes other than to the provision of additional police officers, a potentially significant impact associated with the decrease in the LBPB's protective capacity could occur.

While the increase in the demand for police protection services in the City of Long Beach will require additional outlays for officers and equipment, the demand generated will not require new or physically altered police facilities. Therefore, no significant impacts associated with the construction of such facilities will occur.

Although the portion of the project site located within the City of Lakewood will not generate residents, an increase in demand for services could result from the additional employees and vehicles in the area surrounding the project site. Project-generated municipal revenue could be used to provide additional capacity as determined appropriate by the City of Lakewood and the Sheriff's Department. However, the allocation of such revenue to a specific service cannot be guaranteed. Therefore, although implementation of the proposed project will not affect the existing officer to residential population ratio within the City of Lakewood, implementation of the project could result in potentially significant impacts associated with the demand for additional police protection services.

While the project will result in an increase in the demand for police protection services within the City of Lakewood, the demand generated will not require new or physically altered police facilities, the construction of which will cause significant environmental impacts. Therefore, no significant impacts associated with the provision of new facilities will occur.

The street improvements planned as part of the proposed project could temporarily affect traffic flows along the primary access routes from the LBPB or the Sheriff's Department Stations serving the project site, and disrupt emergency access within the area surrounding the project site. However, temporary traffic controls will be incorporated in accordance with City of Long Beach Public Works Department and City of Lakewood Public Works Department requirements. Also, with implementation of the proposed traffic mitigation measures, traffic conditions at many of the intersections in the project area will be improved. Therefore, implementation of the project will not affect the circulation pattern or result in a substantial increase in emergency response times within the project area, and impacts will be less than significant.

## Mitigation

The project could result in potentially significant impacts on police protection services. Project-generated municipal General Fund revenues are forecast to support the project-related demand for additional officers or related resources. However, it cannot be guaranteed that project-generated tax increment revenue will be allocated to this specific resource. Therefore, the following mitigation measures, which are also included as Project Features, will be implemented to reduce impacts associated with an increased demand for police protection services:

- V.K.1-1: The Applicant shall provide the Long Beach Police Department or Los Angeles County Sheriff's Department with a diagram that will include access routes, home addresses, building unit numbers, and other information to facilitate police response.
- V.K.1-2: The Applicant shall incorporate Crime Prevention Through Environmental Design (CPTED) principles and other crime prevention features into the project that will include the following:
- Lighting of parking structures, elevators and lobbies to reduce areas of concealment;
  - Lighting of building entries and pedestrian walkways to provide for pedestrian orientation and to clearly identify a secure route between parking areas and points of entry into buildings;
  - Building addresses that are visible from the street and roof to facilitate emergency response;
  - Provision that ATMs (cash machines) and public phones are located in visible areas and away from bus stops;
  - Provision that lighting, fencing and landscaping within commercial areas are placed in a manner that maximizes visibility and minimizes opportunities for hiding;
  - Public spaces that are designed to be easily patrolled and accessed by public safety personnel; and

- Design entrances to, and exits from buildings, open spaces around buildings, and pedestrian walkways to be open and in view of surrounding sites

**Level of Significance After Mitigation:** It cannot be guaranteed that project-generated General Fund revenue is allocated to a specific service sector. Therefore, the project could result in a potentially significant and unavoidable impact to police protection services in the Cities of Long Beach and Lakewood. In addition, the project could contribute to a cumulatively significant and unavoidable impact to police protection services in the area surrounding the project site.

**Cumulative Impacts:** Anticipated growth in the Cities of Long Beach and Lakewood will result in a demand for additional police protection services. Similar to the proposed project, future projects will likely include specific features designed to reduce impacts on police protection services. In addition, related projects will be evaluated on an individual basis to determine appropriate measures that address additional demand. Also, the need for additional police protection associated with cumulative growth may be addressed through each City's annual budgeting process and capital improvement programs, should the City of Long Beach and City of Lakewood determine that service improvements are necessary. However, such revenue allocation to a specific service cannot be guaranteed. As such, the cumulative impacts associated with the project's incremental effect and the effects of other related projects in the area could be significant.

## **K.2. FIRE PROTECTION**

Fire and emergency medical services for the Cities of Long Beach and Lakewood are provided by the Long Beach Fire Department (LBFD) and the Los Angeles County Fire Department (LACFD), respectively, with each Fire Department providing first response to its respective portion of the project site. Implementation of the project will result in an increase in the daytime (employment) and residential populations of the LBFD and LACFD service area, which could result in additional calls for fire and emergency medical services. The project will comply with applicable LBFD and LACFD requirements, as well as requirements set forth in the Building and Safety Codes of each of the Cities and the Uniform Fire Code. In addition, compliance with guidelines set forth by the Insurance Services Office (ISO) will ensure that the current ISO rankings of the Cities of Long Beach and Lakewood will not be affected.

With regard to development in the City of Long Beach, additional fire protection equipment may be necessary to provide for the proposed project, and the project will result in an increase in fire prevention inspection. Specifically, the LBFD has indicated that

the proposed project will necessitate the addition of a truck company (i.e., a truck ladder engine, personnel and associated equipment) to safely and effectively meet the adequate levels of service and response times. In addition, the project will result in a demand for an additional one-half full time equivalent (FTE) fire inspection staff person, and one full time equivalent (FTE) plan checker until completion of the project. As indicated by the fiscal impact report regarding this project, annually recurring project generated General Fund revenue will be sufficient under any proposed development scenario to fund the LBFD expenditures associated with additional fire protection equipment, a one-half FTE fire inspector, and one FTE plan checker. However, General Fund revenue may not be pre-allocated to a specific purpose. As such, if the project-generated revenue were not allocated to the provision for fire protection equipment and personnel in the City of Long Beach, a potentially significant impact could occur. While the increase in the demand for fire protection services in the City of Long Beach will require additional outlays for equipment, one-half FTE staff person, and one FTE plan checker, the demand generated will not require new or physically altered facilities. Therefore, no significant impacts associated with the construction of such facilities will occur.

With regard to development in the City of Lakewood, there is expected to be adequate fire protection and emergency medical services within the LACFD service area. The project will comply with the goals set forth in the General Plans of the Cities of Long Beach and Lakewood.

Analyses of existing fire flows on the project site indicate that development intensity on the Long Beach portion of the site is not constrained by fire flows. In addition, fire flows in the City of Lakewood near the project site will meet the project requirements with the installation of a new 16-inch diameter water line, which is proposed as part of the project. Specifically, with the 16-inch diameter water line, the fire flow requirement of 5,000 gpm will be met on the Lakewood portion of the project site, thereby reducing potential impacts to less than significant levels.

The street improvements planned as part of the proposed project could temporarily affect traffic flows in the area, thereby temporarily disrupting emergency access to and within the project site. However, temporary traffic controls will be incorporated thereby reducing the potential short-term impact to emergency access within the project area to a less than significant level. Furthermore, the circulation improvements within and around the project site will increase emergency access to and circulation within the project site. Therefore, implementation of the project will not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan or result in a substantial increase in response times or emergency access within the project area.

## Mitigation

The project will result in a potential demand for new fire protection equipment and a demand for one truck company and associated equipment and staffing, one-half FTE fire inspector, and one FTE plan checker until completion of the project in the City of Long Beach and additional calls for service in Long Beach. Project-generated municipal General Fund revenues forecast to yield an annual fiscal surplus will be sufficient to support any project-related demand for fire personnel or equipment. However, it cannot be guaranteed that project-generated tax increment will be allocated to this specific resource. Therefore, the following mitigation measure will be implemented to substantially lessen impacts associated with an increased demand for fire protection services:

- V.K.2-1      The proposed project shall incorporate all emergency access provisions required by the respective City of Long Beach and County of Los Angeles Fire Departments, including fire lanes, vertical clearance requirements, and Fire Department review, as appropriate. Specifically, review and approval by the respective Fire Departments' Fire Prevention Office shall be required prior to building permit issuance. In addition, fire flow requirements shall be determined by the Fire Department based on building type and building use and fire inspection fees shall be paid as each building within the project site is developed.

**Level of Significance After Mitigation:** Project-generated municipal General Fund revenue cannot be guaranteed to be allocated to a specific service sector. Therefore, even with the implementation of the mitigation measure, the project could result in a potentially significant impact associated with the potential demand for fire protection equipment and a demand for fire inspection personnel in the City of Long Beach. With the incorporation of project features and the mitigation measure, impacts associated with development of the portion of the project site in the City of Lakewood will be less than significant.

**Cumulative Impacts:** Anticipated growth in the Cities of Long Beach and Lakewood will result in a demand for additional fire protection and emergency medical services. Similar to the proposed project, future projects will likely include specific features designed to reduce impacts on fire protection and emergency medical services. Future projects will likely include specific features designed to reduce impacts on fire protection and emergency medical services. In addition, future projects will be evaluated on an individual basis to determine appropriate mitigation measures that will address new demand. The need for additional fire protection and emergency medical services associated with cumulative growth may also be addressed through each City's annual

budgeting process and capital improvement programs, as deemed necessary by each of the Cities' annual budgeting process and capital improvement programs, should the City of Long Beach or City of Lakewood determine that service improvements are necessary. However, the allocation of project-generated revenue to a specific service cannot be guaranteed. Therefore, the combined cumulative impact associated with the project's incremental effect and the effects of future related projects could be significant. Existing fire flow capacities and the presence of mainline piping networks within the project vicinity will permit future development in the surrounding area with generally no constraints related to available fire flow. As required by the LBFD and LACFD, pipe sizes will be upgraded as necessary, depending on the proposed building types and sizes associated with future projects. As such, the cumulative fire flow impacts associated with the project's incremental effect and the effects of other projects will be less than significant.

### **K.3. SCHOOLS**

The project site is located within the Long Beach Unified School District (LBUSD). Using the State of California's definition of available classrooms (i.e., excluding certain portable classrooms), and factoring in special day class students class sizes as well as using state accepted loading factors, LBUSD schools have a capacity of 74,192 students. The 2002-2003 enrollment of 97,212 students presents a capacity shortfall of 23,020 seats within the LBUSD. To provide for the overall shortfall on an interim basis, the LBUSD has installed numerous portable classrooms and has modified its available programs and schedules. In addition, in response to the capacity shortfall and in anticipation of future growth, new capacity of approximately 14,705 seats is being added to the District with both State and local funds. However, even with the increase in capacity funding from state and local funds, the District will continue to have a shortage of space to serve new development using the State's definition of district school facility capacity. LBUSD will continue to utilize portable classrooms to meet this short fall.

To determine the student generation rates for the PacifiCenter project, LBUSD recently matched addresses with apartment projects and single family attached units within the district that are comparable in size and price to the proposed PacifiCenter attached units and apartments. (Since a reasonably sized sample of new single-family detached units could not be obtained within the District, the LBUSD's district-wide rates were used for the detached unit product type to complete the student generation analysis). When applying the student generation rates identified by LBUSD to the proposed product mix and factoring in attendance at private schools, the residential component of the proposed project will generate a total of approximately 272 students within LBUSD.



State law permits the LBUSD to impose a fee on new development to mitigate impacts on school facilities. The fees are collected at the time of the issuance of the building permit. The current fee is \$2.14 per square foot for residential development and \$0.34 per square foot for commercial/industrial development. Pursuant to State Law (SB 50), this fee will serve to fully mitigate the impacts on school facilities associated with the project, and no significant impacts will occur.

### **Mitigation**

The LBUSD and PacifiCenter representatives have ongoing discussions regarding the impacts of the proposed project. A funding and mitigation agreement is anticipated, which will provide funding that will be no less than the fees currently required by Government Code Section 65995 to increase the capacity of District schools, thus reducing overcrowding conditions. If no agreement is approved by both parties, the PacifiCenter project will be subject to payment of school impact fees, current at the time building permits are issued, as provided for by State law and adopted District policies at the time of issuance of building permits for the project. With the developer fees required by State law, no significant project-related impacts to school facilities will occur. Therefore, no mitigation measures will be required.

**Level of Significance After Mitigation:** Under the provisions of SB 50, the California legislature has concluded that a project's impacts on school facilities are fully mitigated via the payment of the requisite new school construction fees current at the time of building permits are issued and established by Government Code Section 65995.

**Cumulative Impacts:** The geographic area for the cumulative analysis for schools is the area within the LBUSD boundary. By 2010, 169,812 households and 255,000 jobs are projected within the LBUSD boundary. Under the provisions of SB 50 all future projects within the LBUSD boundary will be required to pay the construction fees established by Government Code Section 65995. In accordance with Government Code Section 65995, payment of these fees will serve to mitigate impacts of these projects. In addition, as indicated above, with mitigation, implementation of the PacifiCenter project will not result in significant impacts on school facilities. Therefore, the project will not contribute to significant cumulative school impacts.

## **K.4. RECREATION**

The Cities of Long Beach and Lakewood operate parks and recreational facilities within the vicinity of the project site. The proposed project will generate a net increase of

up to approximately 4,784 residents. The project will generate up to approximately 13,442 net new daytime employees by project buildout in the Cities of Long Beach and Lakewood (assuming nearly all commercial uses will be office uses). These residents and on-site employees will have access to the 10.5 acres of parkland and other open space areas provided on-site. Of the 10.5 acres of parkland, 9 acres will be zoned, dedicated and improved as public open space and 1.5 acres will be private open space. In addition to the provision of on-site facilities, the proposed project will be required to comply with the City of Long Beach Municipal Code, which requires residential development to contribute fees for parks and recreational facilities. Compliance with this code requirement, together with the park space improvements proposed as part of the project, will ensure that the demands generated by the project residents will be accommodated. In addition, it is anticipated that the majority of the project employees will utilize on-site recreational facilities and park space areas rather than off-site facilities during weekday lunch times. Therefore, the proposed project will not cause existing ratios of developed parklands per resident to substantially decrease, nor will the project substantially increase the demand for local parks and recreational facilities within the City of Long Beach or Lakewood. No significant impacts will occur.

The PacifiCenter project will be consistent with the goals and standards set forth by the City of Long Beach through the provision of a wide variety of recreation and open space areas on-site and the payment of required Park and Recreation Facilities Fee for residential uses. The project will be consistent with goals set forth by the City of Lakewood since the project will not significantly impact City parks and open space resources. As such, the proposed project will not conflict with applicable City of Long Beach or Lakewood goals or standards, and less than significant impacts will occur.

The proposed project will not preclude the use of any existing recreational facilities, and will provide 10.5 acres of recreation and park space areas. In addition, the payment of park fees for residential uses will occur consistent with the City of Long Beach Municipal Code. Therefore, the proposed project will not result in the increased use of existing recreational facilities such that substantial physical deterioration of the facilities will occur or be accelerated, and replacement parks and recreational facilities will not be required. Therefore, no significant impacts will result.

Physical impacts associated with the development of the park and recreational facilities included as part of the project are analyzed throughout Section V, Environmental Impact Analysis, of this EIR.

## Mitigation

The following mitigation measures are proposed to ensure that project impacts on parks and recreational facilities will be less than significant:

- V.K.4-1      The Applicant shall be required to ensure that 10.5 acres of active or passive park space is provided on-site, including 9 acres of zoned dedicated and improved public park space and 1.5 acres of private park space.
- V.K.4-2      The Applicant shall contribute fees for parks and recreational facilities pursuant to Chapter 18.18, Park and Recreation Facilities Fee, of the City of Long Beach Municipal Code.

Mitigation Measure V.L-20, in Section V.L, Transportation, is also proposed to mitigate potential recreation impacts.

**Level of Significance After Mitigation:** The project features together with the mitigation measures described above will ensure that no significant impacts on the Cities of Long Beach or Lakewood parks and recreation facilities will occur.

**Cumulative Impacts:** The residential population growth projected by SCAG will result in a demand for additional parks and recreation facilities in the area. Section 18.18 of the Long Beach Municipal Code will be implemented to ensure that adequate amounts of parks and recreation facilities will be provided for new residential development in the City of Long Beach through the payment of fees or dedication of land in accordance with the Municipal Code. In addition, residential projects within Residential Districts will be required to meet specific requirements regarding usable open space for project residents. As described above, the proposed project will not result in a direct demand for parks and recreation facilities within the City of Lakewood. In addition, all residential projects within the City of Lakewood will be required to pay fees in compliance with Sections 9226.1 or 6527.2 D of the Municipal Code. These fees will be used to upgrade and maintain existing parks and recreational areas and/or to purchase and develop additional land for park or recreational uses. Finally, future projects will likely include specific features designed to reduce or alleviate demand for public parks and recreational facilities. For the above-mentioned reasons, and with incorporation of the previously described project features related to park space and recreational facilities, the project will not contribute to significant cumulative impacts on parks and recreational facilities in the area.

## **K.5. LIBRARY FACILITIES**

Public library services in the City of Long Beach are provided by the Long Beach Public Library and services in the City of Lakewood are provided by the Los Angeles County Public Library. Implementation of the project will result in an increase of approximately 4,784 residents in the City of Long Beach and approximately 13,442 net new daytime employees in the Cities of Long Beach and Lakewood under the maximum employment scenario. The proposed project does not include any residential units in the City of Lakewood. The Ruth Bach Library that serves the portion of the project site within the City of Long Beach does not currently meet the standard goal of 2.1 library items per capita. Furthermore, with the addition of the project, the amount of floor area per person at the Ruth Bach library will be reduced to approximately 0.19 square feet per resident, which does not meet the City's goal of 0.25 square feet per resident. As a result of the project, the City of Long Beach Public Library has indicated that an approximately 13 percent workload increase at the Ruth Bach Library will be necessary and that the book collection at this Library will have to be expanded proportionally to meet the 2.1 items per capita goal. Annually recurring project-generated General Fund revenue will be sufficient to fund the necessary library expenditures associated with additional demand from the project. However, that revenue stream may not be pre-allocated to a specific purpose. As such, if the project-generated revenue were allocated to other needed municipal purposes other than to the provision of additional resources at the Ruth Bach Library, a potentially significant impact associated with demand for library facilities by the project-generated residential population will occur.

Incremental use of library resources by new project employees in the City of Lakewood in the form of walk-in visits to the library or telephone calls to the library reference desk could occur. However, the actual demand on library resources for professional daytime use by employees will be minimal, particularly since employee research needs are commonly met by in-house or on-line reference resources. Therefore, impacts associated with demand for library facilities by project-generated daytime employees in the City of Lakewood will be less than significant.

### **Mitigation**

Project implementation could potentially result in a significant impact to the provision of library services or to library facilities in the City of Long Beach. Project-generated municipal General Fund revenues are forecast to yield a considerable annual fiscal surplus, which will mitigate potential impacts to library services. Thus, no mitigation measures are proposed.

**Level of Significance After Mitigation:** It cannot be guaranteed that project-generated General Fund revenue is allocated to a specific service sector. Therefore, the project could result in potentially significant and unavoidable impacts on City of Long Beach library services and facilities. In addition, the project could contribute to a cumulatively significant unavoidable impact to library services in the City of Long Beach. No significant project impact or cumulative impacts on City of Lakewood library services and facilities will occur.

**Cumulative Impacts:** Since library services in the City of Long Beach are organized around service areas, the geographic distribution of the population growth projected by SCAG is important. The majority of this growth is projected to occur in the southern portion of the City. However, as residential growth generated by the proposed project will significantly impact library services both within its service area and in the City as a whole due to the transfer of materials among libraries, and as there is currently a system-wide shortage of library resources in the City, the project will contribute to cumulative impacts in the service area in which it is located as well as in the City as a whole. The need for additional library resources associated with cumulative growth may be addressed through the City's annual budgeting process. However, as described above, the allocation of project-generated revenue to a specific service cannot be guaranteed. Therefore, the combined cumulative impacts to libraries within the City of Long Beach associated with the project's incremental effect and the effects of other projects in the area could be significant.

Since no residential units are proposed for the portion of the project within the City of Lakewood, the project will not contribute to cumulative library impacts in the City of Lakewood. Furthermore, any future projects may include specific features designed to reduce impacts on library services and facilities. Future projects will be evaluated individually to determine appropriate measures to address new demand. Cumulative impacts on library facilities in the City of Lakewood will be less than significant.

## **L. TRANSPORTATION/CIRCULATION AND PARKING**

The San Diego Freeway (I-405) and the Artesia Freeway (SR-91) provide primary regional access to the project site. Locally, the primary roadways that serve the project site include Carson Street, Lakewood Boulevard, Spring Street, Paramount Boulevard, and Cherry Avenue. Under existing conditions, 39 of the 107 existing study intersections are operating at LOS E or F in one or both of the peak hours. Prior to implementation of proposed mitigation measures, implementation of the PacifiCenter project will significantly impact 55 study intersections. When combined with the intersections that are currently operating at unacceptable levels, a total of 79 study intersections will be operating at LOS

E or F in one or both peak hours after project completion. With implementation of project TDM and the proposed mitigation measures, a total of 60 intersections will operate at unacceptable levels. However, the project will significantly impact three of the study intersections after mitigation.

Under existing conditions, all of the nine analyzed mainline segments on I-405 are currently operating at LOS E or F during one or both peak hours. All six of the mainline segments on SR-91 within the study area are operating at LOS E or F during one or both peak hours under existing conditions. In addition, all of the analyzed on-ramps serving I-405 and SR-91 are operating at LOS D or better. The project will have significant impacts on eight of nine I-405 mainline segments analyzed prior to mitigation. Two of six analyzed mainline segments on SR-91 will experience a significant project impact during one or both peak hours prior to mitigation. In addition, one of the 18 on-ramps analyzed for I-405 will be significantly impacted by the project prior to mitigation. None of the analyzed on-ramps of SR-91 will be significantly impacted by the project. After implementation of the proposed mitigation measures, significant impacts will remain at eight of the I-405 mainline segments analyzed. However, the CMP credit/debit analysis indicates that the project will result in a greater benefit than impact on the regional transportation system, and the proposed mitigation measures will further improve conditions. Nonetheless, since the future with project (including TDM and mitigation measures) condition will result in a D/C ratio increase of 0.020 or more with a final LOS of F on eight of the I-405 mainline segments analyzed, the project's impacts on these freeway segments are considered significant.

A traffic volume analysis was conducted for five residential street segments. Of the analyzed segments, three will experience significant traffic increases (more than 500 trips per day or 50 trips per hour) as a result of the project. Mitigation measures will reduce these impacts to less than significant levels. However, while such measures can reduce the impacts on the residential street segments to less than significant levels, should the jurisdictions fail or be unable to implement acceptable and adequate measures, some or all of these project impacts will remain significant.

Long Beach Transit (LBT) is the primary transit service provider in the City of Long Beach and the project vicinity. The project is expected to increase usage of LBT bus routes operating near the project site and to add new riders to the Metro Blue Line Light Rail Transit. LBT reports that it currently has the rolling stock and facilities to absorb a moderate increase in demand such as may be anticipated from the PacifiCenter project. As such, a less than significant impact to transit will be expected.

The City of Long Beach has a system of bikeways that provide reasonable access to the project site from the east, southeast, and northeast, with more limited access from the west and north. The pedestrian environment on the project site consists primarily of disconnected sidewalks with no major pedestrian linkages. The project will not disrupt existing bicycle or pedestrian routes. Rather, it will include improvements to these systems in the project vicinity. As such, no significant impacts will occur.

The existing parking supply on the project site is comprised of several off-street surface parking lots distributed throughout the site. Off-street parking will be provided for the project based on the adjusted gross floor area of each of the buildings. On-street parking will also be provided for specified uses. By appropriately taking into account the potential for shared parking to occur at mixed-use projects such as PacifiCenter, as allowed pursuant to Section 21.41.223 of the Long Beach Municipal Code, the project will provide adequate parking to serve the proposed uses. As such, a less than significant impact to parking will occur.

The project will be consistent with Congestion Management Plan Guidelines as well as applicable policies, goals, and objectives contained within the SCAG Regional Transportation Plan, the Transportation Element of the Long Beach General Plan, the Long Beach Bicycle Master Plan, and the Circulation Element of the Lakewood General Plan.

Construction activities associated with the PacifiCenter project could result in temporary traffic impacts on the surrounding roadways associated with an increase in truck traffic associated with removal or import of fill material and delivery of construction materials, and an increase in vehicle traffic associated with construction workers traveling to and from the site. Such activities may cause an intermittent reduction in street and intersection operating capacity on surrounding roadways. Mitigation measures outlined in Section V.B, Air Quality related to construction deliveries and temporary traffic controls will reduce impacts associated with construction traffic (refer to Mitigation Measure V.B-13). However, while construction traffic impacts will be temporary and short-term, they will be nonetheless, be considered significant.

### **Mitigation**

The project proposes to implement a subregional transportation mitigation program that addresses both project impacts and area-wide needs. All of these measures are described below.

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**Area-Wide Adaptive Traffic Control System and Intelligent Transportation System Measures (ITS):**

- V.L-1 Fund or cause the funding for the design and construction of a state-of-the-art traffic signal system such as Adaptive Traffic Control System (ATCS) for the following eight arterial routes: (1) Del Amo Boulevard, approximately from the Long Beach Freeway (I-710) to the San Gabriel River Freeway (I-605); (2) Carson Street, approximately from Long Beach Boulevard – San Antonio Drive to I-605; (3) Spring Street, approximately from Atlantic Avenue to I-605; (4) Willow Street, approximately from Atlantic Avenue to I-605; (5) Atlantic Avenue, approximately from the Artesia Freeway (SR-91) to Willow Street; (6) Cherry Avenue, approximately from SR-91 to Pacific Coast Highway; (7) Lakewood Boulevard, approximately from SR-91 to Stearn Street; and (8) Bellflower Boulevard, approximately from SR-91 to the San Diego Freeway (I-405).<sup>11</sup>
- V.L-2 Fund or cause the funding for the design and construction of interconnect, traffic detectors, surveillance cameras, message signs, and other means that connect the arterial traffic signal system with adjacent freeway on- and off-ramps meters and signals. Such connectivity with the regional transportation system will allow motorists exiting and entering the freeway to be better and more quickly informed as to which surface streets and on-ramps provide the best alternatives for accessing their destinations. This will result in better distribution of traffic loadings and more efficient use of available street and ramp capacity.
- V.L-3 Fund or cause the funding for the design and construction of a centralized ATCS/ITS command center to operate and manage the area-wide ATCS and affiliated ITS measures.

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<sup>11</sup> *The capacity of the signalized intersections along the eight arterials being implemented with the ATCS and supportive ITS measures were assumed to improve by ten percent, which is consistent with that experienced in other jurisdictions with ATCS/ITS programs, such as the Cities of Los Angeles, Pasadena, and Glendale. Signalized intersections in the study area not directly along the ATCS/ITS routes would also benefit and experience improved traffic flow overall due to ITS technology informing motorists of traffic conditions in the area. Motorists can use this information to seek better routes and thereby better balance traffic demand with capacity. It was assumed that this betterment is commensurate with an approximately three percent improvement in capacity at these other intersections.*



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## Intersection Improvements

- V.L-4      Del Amo Boulevard and Lakewood Boulevard (Intersection 32, Cities of Lakewood and Long Beach): Widen on the east side of the north leg and the west side of the south leg of Lakewood Boulevard; remove the nose islands and modify the remaining raised islands on the north and south legs; and restripe the north and south legs to provide a second southbound left-turn and three through lanes in each direction on Lakewood Boulevard. No on-street parking removal is anticipated.
- V.L-5      Carson Street and Paramount Boulevard (Intersection 44, City of Lakewood): Widen on the east side of the south leg of Paramount Boulevard; modify and shift the raised island on the north leg; remove the raised island on the south leg; and restripe the north and south legs to provide a northbound right-turn-only lane on Paramount Boulevard. No on-street parking removal is anticipated.
- V.L-6      Carson Street and Lakewood Boulevard (Intersection 45, Cities of Long Beach and Lakewood): Widen on the west side of Lakewood Boulevard between Carson Street and the project access roadway opposite Douglas Center Drive; modify and shift the raised islands on the north and south legs; restripe the north leg to provide an additional southbound through lane; and restripe the departure lanes on the south leg to receive the added through lane traffic. No on-street parking removal is anticipated.
- (Note: This improvement will not fully mitigate the project impact to a less than significant level.)
- V.L-7      Carson Street and Bellflower Boulevard (Intersection 48, Cities of Long Beach and Lakewood): Prohibit parking during the A.M. peak period on the north side of Carson Street for a length of approximately three blocks east and west of Bellflower Boulevard; modify and lengthen the left-turn channelization along the raised islands on the east and west legs of Carson Street; and restripe this length of Carson Street to provide a third westbound through lane, including conversion of the right-turn lane at Bellflower Boulevard, for the A.M. peak periods, and extended left-turn lanes approaching Bellflower Boulevard.

On-street parking removal of up to approximately 75 spaces during the A.M. period on the north side of Carson Street will be necessary.

The affected parking spaces are adjacent to residential and commercial uses that appear to have off-street parking facilities capable of satisfying parking requirements. Therefore, removal of the on-street parking is not expected to have a significant impact.

V.L-8

Cover Street and Paramount Boulevard (Intersection 56, City of Lakewood); Cover Street from Paramount Boulevard to West of Industry Avenue (Cities of Long Beach and Lakewood): Construct the project roadway approximately in a northwesterly alignment approaching Cover Street and Paramount Boulevard, and stripe to provide two through lanes and a right-turn-only lane westbound, and a bike lane in each direction. Reconstruct Cover Street approximately in a southeasterly alignment approaching the project roadway and Paramount Boulevard, and restripe to provide a left-turn lane and two through lanes eastbound, and a bike lane in each direction. Restripe Paramount Boulevard to provide a left-turn lane and a right-turn-only lane southbound. No on-street parking removal is anticipated.

Widen on the north side of Cover Street from approximately 100 feet west of to 340 feet east of Industry Avenue; modify and lengthen the left-turn channelization along the raised island on the east leg at Industry Avenue; and restripe to provide two through lanes, left-turn channelization and a bike lane in each direction, including an extended westbound left-turn lane at Industry Avenue, from Industry Avenue to the improvement at Paramount Boulevard. Restripe the west leg of Cover Street at Industry Avenue to provide two eastbound through lanes, including conversion of the right-turn-only lane, and two westbound right-turn-only lanes departing the intersection and approaching Cherry Avenue. On-street parking removal of up to approximately three spaces on Cover Street will be necessary.

Restripe Industry Avenue between Cover Street and Bixby Road to provide a left-turn lane and two right-turn-only lanes northbound, a southbound through lane, and a bike lane in each direction.

The affected parking spaces are adjacent to commercial and industrial uses. There appears to be sufficient off-street capability to satisfy parking requirements. Therefore, removal of the on-street parking is not expected to have a significant impact.

The reorientation and reconfiguration of the legs of this intersection could potentially necessitate some right-of-way acquisition.

(Note: These improvements are designed to enhance project access via the Cover Street – Cherry Avenue route and should be implemented with Mitigation Measures V.L-9 and V.L-14)

V.L-9 Bixby Road and Cherry Avenue (Intersection 59, Cities of Long Beach and Lakewood): Restripe the east leg of Bixby Road to provide one left-turn lane, one left-turn/through shared lane and one right-turn-only lane.

On-street parking removal of up to approximately 37 spaces, including nine commercial (yellow zone) spaces, on Bixby Road will be necessary. The affected parking spaces are adjacent to commercial uses. There appears to be sufficient off-street capability to satisfy parking requirements, with the possible exception of delivery/service needs. Therefore, removal of some of the on-street parking may result in a shortage of parking in the area during times of peak demand.

(Note: This improvement is designed to enhance project access via the Cover Street – Cherry Avenue route and should be implemented with Mitigation Measures V.L-8 and V.L-14.)

V.L-10 Conant/B Street and Lakewood Boulevard (Intersection 60, City of Long Beach): Construct and stripe B Street approaching Lakewood Boulevard to provide one left-turn lane, one through lane and two right-turn-only lanes eastbound. Restripe and convert the right-turn-only lane on the east leg of Conant Street to a westbound through/right-turn shared lane. No on-street parking removal is anticipated.

(Note: This improvement will not fully mitigate the project impact to a less than significant level.)

V.L-11 Wardlow Road and Cherry Avenue (Intersection 65, City of Long Beach): Widen on both sides of the south leg of Cherry Avenue; shorten the raised island on the north leg; and restripe the north and south legs to provide a third southbound through lane.

Extensive on-street parking removal on Cherry Avenue, especially on the north leg, will be necessary. The affected parking spaces are adjacent to commercial and residential uses. There appears to be sufficient off-street capability to satisfy parking requirements.

Therefore, removal of the on-street parking is not expected to have a significant impact.

(Note: This improvement is designed to enhance project access via Cherry Avenue.)

- V.L-12      Douglas Center Drive/Project Access Roadway (new) and Lakewood Boulevard (Intersection 105, City of Long Beach): Widen on the west side of Lakewood Boulevard between Carson Street and the project access roadway; modify the raised island on Lakewood Boulevard for left-turn channelization; and restripe to provide a fourth southbound through lane that becomes a right-turn-only lane at the project access roadway, and a northbound left-turn lane. No on-street parking removal is anticipated.

(Note: This improvement is designed to enhance project access capacity on Lakewood Boulevard.)

- V.L-13      A Street (new) and Lakewood Boulevard (Intersection 106, City of Long Beach): Widen on the west side of the north leg of Lakewood Boulevard; open and modify the raised island on Lakewood Boulevard to provide left-turn channelization; and restripe to provide a southbound right-turn-only lane and northbound left-turn lane. Install a traffic signal with the ATCS upgrade to control this intersection.

(Note: This improvement is designed to enhance project access capacity on Lakewood Boulevard.)

- V.L-14      Cover Street and Cherry Avenue (Intersection 108, Cities of Long Beach and Lakewood): Open and modify the raised island on Cherry Avenue between Roosevelt Road and Bixby Road, and restripe to provide a southbound left-turn lane accessing Cherry Avenue and a third northbound through lane. Restripe Cover Street to provide a second westbound right-turn-only lane and no westbound left-turn lane. Remove the stop sign control on Cover Street and install a “half signal” that controls all movements except for the southbound through movement on Cherry Avenue.

On-street parking removal of up to approximately 12 spaces on Cherry Avenue and 24 spaces on Cover Street would be necessary. The affected parking spaces are adjacent to commercial and industrial uses. Some of these uses may not have sufficient off-street

capability to satisfy parking requirements. Therefore, removal of the on-street parking may result in a shortage of parking in the area during times of peak demand.

(Note: This improvement is designed to enhance project access via the Cover Street – Cherry Avenue route and should be implemented with Mitigation Measures V.L-8 and V.L-9.)

- V.L-15      Carson Street and First Street (new) (Intersection 109, City of Long Beach): Restripe Carson Street to provide a westbound left-turn lane. Install a traffic signal with the ATCS upgrade to control this intersection. No on-street parking removal is anticipated.

### **Project Transportation Demand Management (TDM) Program**

- V.L-16      A project TDM program shall be implemented to reduce inbound A.M. peak hour and outbound P.M. peak-hour employee vehicle trips by 20 percent for the Commercial (Office Park) use. Although the project is claiming trip-reduction credit for only this use, many of the TDM program measures will be available to a broader cross section of the site, and will likely attract participants outside of the targeted uses. Should it become evident that the project TDM program is not on schedule to achieve and sustain the 20 percent trip reduction goal, the project, as mutually agreed to with the City of Long Beach, will accelerate the implementation of the physical mitigation measures and/or expand its TDM program to include other employers in the area surrounding the project site. The project TDM program is more fully described in Appendix Q. The TDM program may include but not be limited to the following measures:
- On-Site Employee Transportation Coordinator (ETC) – The ETC would be a full-time position. The ETC would be responsible for maintaining the transportation displays and providing services such as on-site monthly transit pass sales, assistance with carpool/vanpool matching, oversight of the carpool/vanpool program and other ridesharing related services. The ETC would also coordinate resources and ideas with other transportation management organizations.
  - On-Site Transportation Management Office – This facility would be a dedicated office for the ETC and any support personnel. It would serve as a tangible focal point for the TDM program. The location

and contact number of this office would be well publicized so that employees could conveniently call or come in for assistance.

- Preferential Parking Management – The ETC would oversee a preferred employee carpool/vanpool parking program. This program would assign preferential parking spaces (i.e., the more desirable and convenient spaces) to eligible employee carpools and vanpools, and monitor the use of the identified spaces to ensure that they are being properly used.
- Carpool/Vanpool Matching – A ridematching service would be made available to help employees seek carpool and vanpool partners. The ETC would facilitate employee ridematching, with the primary emphasis on matching project employees with one another. The availability of this service would be advertised on on-site transportation displays.
- Vanpool Start-Up Assistance – The ETC would assist employers or employees attempting to initiate vanpool service at the project. This assistance could include research of van leasing arrangements, research of applicable tax credits, increased marketing activity and developing vanpool routes.
- Vanpool Staging Areas – Special vanpool passenger loading/unloading areas would be established at one or more locations on-site. This incentive would make it more convenient and safer for commuters to load and unload their vanpools outside the normal flow of traffic.
- On-Site Transit Pass Sales – Monthly LBT, joint LBT/MTA, and MTA passes would be available for purchase through the on-site transportation management office (TMO).
- Centralized Information Board – A centralized bulletin board or kiosk with information on alternative transportation modes, including transit, would be provided on-site. A centralized transportation information board with similar information for residents would also be provided on-site.
- New Business/Employee Commuter Benefits/Flier Packet – The ETC would prepare fliers and/or packets outlining key TDM amenities and services that are made available by the project in support of alternative transportation modes. The fliers/packets would be distributed to employers for their dissemination to employees.

- Guaranteed Ride Home Program – This program would provide the means to those employees who carpool, vanpool, bus or bicycle to work to have a guaranteed ride home in the event of an emergency or unexpected overtime.
- Other Marketing – The annual state- and regional-level events of California Rideshare Week and Southern California Bike-to-Work Day would be advertised and potentially used as the setting for a site-specific marketing event or transportation fair.
- Shuttle System – This shuttle system would be implemented through a joint arrangement with the City of Long Beach and/or Long Beach Transit, whereby the project would supply the shuttle vehicles and other capital needed to operate the service, and the City agencies would operate the service. It is anticipated that the shuttle system would provide limited stop service to the Metro Blue Line and intersecting bus lines that are en route during the morning and afternoon commute periods, and would operate as a free project circulator during non-commute periods to provide an alternative to walking or short driving trips within the PacifiCenter site.

### **Regional Transportation Improvements**

- V.L-17      I-405 (San Diego Freeway) Northbound On-Ramp from Southbound Cherry Avenue: Widen the two northbound on-ramps in the area where these ramps merge to provide an elongation of the merge section for a smoother and safer merge. Additionally, the ramp metering location for southbound traffic from Cherry Avenue could be relocated to provide added queuing length between the meter and Cherry Avenue.

### **Residential Street Measures**

- V.L-18:      The Applicant shall provide appropriate funding to the City of Long Beach to administer and allocate for the design and implementation of neighborhood traffic management measures to deter non-residential traffic intrusion into the residential areas surrounding the project site. Such measures may include speed bumps, additional stop signs, peak period turning prohibitions, “right turn on red” prohibitions, retiming of traffic signals, architectural neighborhood identification monuments or gates, or round-a-bout traffic circles. The City of Long Beach will include and coordinate with adjacent

jurisdictions and neighborhood groups that may be affected by project-related traffic intrusion on these residential streets.

### **Public Transit Measures/Improvements**

- V.L-19      The Applicant shall consult with Long Beach Transit (LBT) and the Metropolitan Transportation Authority (MTA) to address the project's anticipated transit demand needs.

### **Bicycle Facility Improvements**

- V.L-20      In keeping with the intent of the Long Beach Bicycle Master Plan, the project will continue to provide a Class I bike lane within the Carson Street parkway adjacent to the site between First Street and Lakewood Boulevard, and will provide a Class II bike lane that extends through the project site south from Carson Street and west to the Paramount Boulevard/Cover Street intersection. These bicycle facility improvements will occur simultaneously with the phasing of the on-site streets.

### **Parking Measure**

- V.L-21      A shared parking analysis will be prepared and submitted to the City of Long Beach for review and approval to justify a reduction in the Code-required on-site parking for the uses that will implement joint-use parking.

**Level of Significance After Mitigation:** The proposed mitigation measures outlined herein will reduce nearly all of the significant project impacts at the 55 intersections to less than significant levels. However, significant impacts will remain at three intersections. The project will also contribute to significant and unavoidable cumulative impacts at these intersections as well as four other intersections that will not be significantly impacted by the project but will not have improved conditions under the proposed project with mitigation measures as compared to the future no project conditions.

In terms of impacts to the regional transportation system, the project will fund or cause to be funded extensive area-wide mitigation measures on the surface street system, which will have much greater benefit than impact on the regional system. In addition, voluntary improvements to the Cherry Avenue on-ramp to the I-405, which are included as part of the project, will further reduce cumulative impacts to the regional system. Although



the CMP credit/debit analysis indicates that the project will have a greater benefit than impact on the regional transportation system, as the project will result in a D/C ratio increase of 0.020 or more with a final LOS of F on eight of the nine I-405 mainline segments analyzed, the project's impacts on these freeway segments are considered significant and unavoidable.

Project impacts to residential street segments can be reduced through the implementation of a mitigation measure requiring the funding for the implementation of neighborhood traffic management measures. However, should the jurisdiction(s) with authority to implement these measures fail or be unable to implement acceptable and adequate measures, project impacts on possibly up to three significantly impacted residential street segments will be significant and unavoidable.

While impacts associated with construction traffic will be short-term and temporary, they are considered to be a significant and unavoidable impact. Should several projects in the vicinity of the project be constructed at the same time, the project will also contribute to a short-term significant cumulative impact.

The project will provide adequate parking to serve the proposed uses as well as to satisfy parking requirement included in the Code. As such, no significant parking impacts will occur. In addition, significant unavoidable impacts associated with transit, bicycle and pedestrian circulation, and construction traffic will not occur. Finally, the project will not result in a change in air traffic patterns that will cause substantial safety risks or substantially increase hazards due to design features or incompatible uses.

**Cumulative Impacts:** By the year 2020, poor operating conditions (LOS E or F) are projected during one or both of the peak hours at 70 of the study intersections. The future with project plus mitigation condition will result in an overall improvement to most of the study intersections when compared with future without project conditions due to roadway improvements that will be completed as mitigation for the project. However, at a small number of the intersections (i.e., seven), the future without project condition will have better conditions during one or both of the peak hours as compared with conditions under the proposed project with mitigation measures. This is the case at the seven intersections including the three that will experience significant and unavoidable project impacts. As such, while the project with mitigation will result in improved conditions at a majority of the study intersections, because conditions will not improve at seven of the intersections, the project is considered to contribute to cumulatively considerable intersection impacts.

Cumulative traffic on I-405 and SR-91 within the project vicinity will contribute to the existing congestion on these freeways. All of the analyzed mainline segments will be

operating at LOS E or F in 2020 in one or both peak hours either with or without development of the PacifiCenter project. The project includes voluntary improvements to the Cherry Avenue on-ramp at I-405. The project will implement mitigation measures to alleviate these impacts. However, although the project will result in an overall benefit to the regional transportation system, since the project will result in a D/C ratio increase of 0.020 or more with a final LOS of F on eight of the nine I-405 freeway segments analyzed, the project is considered to contribute to a cumulatively considerable impact to regional freeways.

Cumulative growth will result in traffic increases on residential street segments in the project area. Related projects will be required to mitigate any significant impacts to these roadways, as necessary. However, as the project will possibly result in a significant and unavoidable impact on up to three residential street segments, the project will also contribute to a cumulatively considerable impact on these residential street segments. No other significant cumulative impacts associated with transportation, circulation, or parking will occur.

### **M.1. WATER**

The Long Beach Water Department (LBWD) provides water services for the City of Long Beach, while the City of Lakewood Department of Water Resources provides water services for the City of Lakewood. The majority of LBWD's water supply is imported from the Metropolitan Water District (MWD). The LBWD currently serves the majority of the project site.

A short-term, intermittent demand for water will occur as a result of demolition, excavation, grading, and construction activities on the project site, and will total approximately 3,000 gallons per day (gpd) per acre of construction activities. The additional water demand generated by project construction will be offset by the reduction in water consumption from demolition of existing uses. Overall, demolition and construction activities will require minimal water demand and will not result in a significant impact on the existing water system or available water supplies.

Implementation of the project will result in an increase in water demand for operational uses. Potable water used for domestic purposes within the Long Beach and Lakewood portions of the site will be obtained from the City of Long Beach Water Department and Lakewood Department of Water Resources, respectively, and water used for irrigation and landscaping purposes will be provided by LBWD via the proposed reclaimed water distribution system. The average potable water demand of the proposed project at full buildout will be approximately 1,407,500 gpd, or an increase of

approximately 1,331,600 gpd over existing conditions. This increase represents approximately 2.1 percent of the approximately 63 million gpd water demand in LBWD's service area. The peak or maximum daily potable water demand will be approximately 2,420,900 gpd at project buildout. Additionally, total project-related water demand within the Long Beach portion of the site represents approximately 2.0 percent of LBWD's future average domestic demand estimated in the 2000 Urban Water Management Plan (UWMP).

The average demand for reclaimed water generated by the project will be approximately 402,715 gpd (the site does not currently use reclaimed water); maximum daily demand will be 939,669 gpd, based on an 8-hour nighttime irrigation period, scheduled three times per week. All reclaimed water will be provided by LBWD. The total project-related reclaimed water demand throughout the site represents approximately 3.5 percent of LBWD's future average domestic demand estimated in the 2000 Urban Water Management Plan. Since the LBWD currently utilizes approximately two-thirds of the total reclaimed water produced, the LBWD will have adequate resources to serve the project site. The project will involve new domestic and reclaimed water systems that follow the proposed roadways and provide connections to service individual sites within the PacifiCenter property. The project will also provide for a new 16-inch water line in Paramount Boulevard parallel to the City of Lakewood's existing lines in order to accommodate fire flow requirements in the Lakewood portion of the site. An emergency interconnect between the Lakewood and Long Beach systems is proposed at the city line at the request of the Lakewood Department of Water Resources.

In addition, on-site water systems will be designed and constructed to provide adequate water service and flows for the project site, water conservation measures will be employed, and project implementation will not inhibit the capacity of the system serving the surrounding project area. Based on this information and in consultation with the LBWD and the City of Lakewood Department of Water Resources, the Cities have adequate water supplies to accommodate the demand for domestic and reclaimed water that will be generated by full buildout of the proposed project. Thus, implementation of the project will not result in a significant impact on water supply or services.

In accordance with SB 610, a water supply assessment has been prepared for the Long Beach portion of the PacifiCenter project by the Long Beach Water Department. The LBWD water supply assessment demonstrates that the projected water supplies available during normal, single-dry, and multiple-dry water years included in the City's UWMP 20-year projection will meet the projected water demand associated with the project as well as existing and other planned future uses of LBWD's system. Based on the land uses, estimated floor area, and maximum employment anticipated within the

Lakewood portion of the site, that portion of the project does not meet the definition of a project per Section 10912 of the Water Code, and the requirements of SB 610 do not apply.

### **Mitigation**

Based on the analysis provided herein, development of the proposed project will not result in any significant impact to water services. However, the following mitigation measures are proposed to ensure implementation of the project features described herein.

- V.M.1-1      Water line abandonment, new water system connections, and the construction of on-site infrastructure needed for future development on-site shall be completed in accordance with the requirements of the City of Long Beach Water Department, City of Lakewood Department of Water Resources, Long Beach Fire Department, and the County of Los Angeles Fire Prevention Division, Engineering and Building Plan Check Unit.
- V.M.1-2      The installation of new domestic water infrastructure shall be coordinated with PacifiCenter development and on-site street improvements.
- V.M.1-3      The proposed on-site reclaimed water distribution system shall be constructed in accordance with the requirements of the Long Beach Water Department. The installation of new reclaimed water infrastructure shall be coordinated with PacifiCenter development and on-site street improvements.
- V.M.1-4      Project development shall comply with State law regarding water conservation measures, including pertinent provisions of Title 20 and Title 24 of the California Government Code regarding the use of water efficient appliances.

**Level of Significance after Mitigation:** The existing infrastructure of the LBWD is adequate to provide both domestic and fire water demands for the Long Beach portion of the project. Additionally, with the proposed off-site water line improvements along Paramount Boulevard, the Lakewood water system will be adequate to provide both domestic and fire water demands for the Lakewood portion of the project. As such, no significant impacts will result from project implementation.

**Cumulative Impacts:** Few related projects (Related Project Nos. 6, 12 and 44) that are expected to use segments of the water distribution system serving the project site have been identified in the immediate project locale. Given their size and nature, none of these related projects is expected to use substantive existing or anticipated capacity. However, should developments be proposed in the future that exceed local infrastructure capacity, the development(s) will be expected to make appropriate infrastructure upgrades. Therefore, no substantive cumulative impacts on local water distribution infrastructure will occur.

Locally, all of the identified related projects located in the City of Long Beach can be conservatively expected to generate an average daily water demand of approximately 2.0 million gallons or roughly 150 percent of the net increase associated with the proposed project. Cumulatively, PacifiCenter and all identified related projects in the City of Long Beach will then increase total existing Long Beach domestic average daily water demand by as much as a combined 6 percent of total City demand. Related projects in the City of Lakewood when combined with the project can be conservatively expected to increase Lakewood's total existing average daily water demand by as much as 2.5 percent. Considering that each City has independently determined that it can adequately supply PacifiCenter's respective water demand and that these determinations are made with an understanding of other projects simultaneously seeking water connection, it is concluded that cumulative water demand in both cities will not exceed foreseeable accessible water supplies. This conclusion is reinforced with the knowledge that both cities may exercise their rights to supplement current supplies with water from the MWD.

On a regional level, since estimates of project employment and residential population growth are within sub-regional as well as regional forecasts made by SCAG, and SCAG forecasts are consistent with MWD's own projections, it can be concluded from a cumulative perspective that the project is consistent with regional planning for future water supplies. The MWD's Integrated Resource Plan has targeted increased conservation, recycling, storage and water transfers to help ensure the region's future water supply. In addition, similar to the proposed project, any future projects will likely include specific features designed to reduce impacts on water supply. Therefore, no significant cumulative impacts on water services will occur in conjunction with project implementation.

## **M.2. SEWER**

**Impacts:** The County Sanitation Districts of Los Angeles County (CSDLA) serves the portion of the project site within the City of Lakewood, and the Long Beach Water Department (LBWD) provides sewer service to the portion of the site within the City of

Long Beach. Under existing conditions, sewage flows from the eastern part of the site are conveyed to a private 15-inch sewer line that solely serves the PacifiCenter site. Flows from the western and central portions of the site are conveyed to the 15- to 21-inch public pipeline running along the Conant Street extension. All site-generated wastewater is treated at either the Long Beach Water Reclamation Plant (LBWRP) or the Joint Water Pollution Control Plant (JWPCP). Implementation of the proposed project, under worst-case conditions, will generate average sewage flows of approximately 1.33 million gallons per day (mgd) (2.05 cubic feet per second (cfs)), or an additional 1.24 mgd (1.92 cfs) when compared to existing conditions. Peak flows for the project will be 4.22 cfs (2.73 mgd) or 3.94 cfs (2.55 mgd) more than under existing conditions. The existing sewer infrastructure on the site will be replaced by a new system that will be designed to provide adequate service to the project. New sewer lines will range from 8 to 21 inches in diameter and will be located in the proposed roadways. In addition, with approval by LBWD, the private 15-inch main sewer line located on-site will be transferred to LBWD to increase capacity within the public sewer system, with appropriate upgrades undertaken, as necessary and portions of the existing 15- to 21-inch line in Conant Street will be replaced on-site. The existing downstream sewer lines are not currently used to their full capacity and will be able to accommodate the additional sewage flows from the project site. Furthermore, the CSDLA has indicated that both treatment plants have adequate capacity to treat the additional flows generated by the proposed project. The PacifiCenter project will also comply with all applicable LBWD and CSDLA requirements for design and construction of new sewer infrastructure as well as requirements set forth in Section V.E., Hazards and Hazardous Materials of this EIR. Therefore, the increase in project-generated wastewater will not exceed the capacity of the sewer delivery system, or the existing capacity of LBWRP or JWPCP. In addition, the proposed improvements to the existing infrastructure will not reduce the ability of the sewer system to serve the surrounding project area. Therefore, impacts associated with demand for sewer facilities will be less than significant.

### **Mitigation**

Based on these analyses, implementation of the PacifiCenter project will result in less than significant impacts on sewer service. However, the following mitigation measures are proposed to ensure implementation of the project features described above.

- V.M.2-1      The proposed on-site sewer line improvements and associated sewer line connections located within the City of Lakewood portion of the project site shall be designed to meet applicable standards set forth by the Los Angeles County Department of Public Works (LACDPW) and shall be maintained by the County of Los Angeles Sanitation District Number 3 (CSDLA No.3). Associated wastewater flows shall

discharge into sewer facilities located within the City of Long Beach portion of the project site, and the Long Beach Water Department (LBWD), on behalf of the City of Long Beach, shall accept such flows from the Lakewood portion of the on-site sewer system (approximately 1,000 feet in length). During the design phase of the on-site sewer line improvements, a new sewer manhole shall be located at the boundary between the Cities of Long Beach and Lakewood as a point of demarcation.

- V.M.2-2 Any food service uses located within the Lakewood portion of the project site shall implement a grease control program that shall include the installation of grease traps at the property, proper maintenance, and regular inspections.

**Level of Significance After Mitigation:** Implementation of the proposed mitigation measures will ensure that no significant impacts associated with sewer service will occur.

**Cumulative Impacts:** Cumulative impacts relative to sewage conveyance infrastructure are evaluated locally in the context of anticipated developments expected to utilize the same elements of the sewage collection system. Few related projects that are expected to generate substantive sewage effluent that will consume existing and proposed capacity have been identified in the immediate project locale. In addition, the CSDLA's interceptor trunk sewer (NLBITS) located downstream of the project site and into which nearby related projects (e.g., Related Project Nos. 6, 12, and 44) will ultimately discharge has available capacity of over 5 mgd. Therefore, no substantive cumulative impacts on local sewage collection infrastructure are anticipated in conjunction with this project. The geographic area for the cumulative analysis for sewer treatment is defined as the CSDLA service area. Within its service area, the CSDLA uses SCAG forecasts of future population and employment growth to project needed capacity. Because the CSDLA projects that its existing and programmed wastewater treatment capacity will be sufficient to accommodate the growth forecasts by SCAG, development that is generally consistent with this forecast can also be adequately served by CSDLA facilities. Estimates of project employment and residential population growth fall within SCAG growth projections for the sub-region in Los Angeles County through 2020. Therefore, the project is considered consistent with regional planning for future wastewater treatment capacity and will not contribute to significant cumulative impacts.

### **M.3. SOLID WASTE**

During 2001, approximately 60 percent and 39 percent of the City of Long Beach's solid waste was disposed of at Class III landfills and transformation facilities, respectively. Less than one percent of the City's solid waste was disposed of at Unclassified landfills. Approximately 82 percent of Long Beach solid waste was disposed of at one of the following four landfills: Southeast Resource Recovery Facility (SERRF) (approximately 39 percent); Puente Hills Landfill (32 percent); and Frank R. Bowerman and Olinda Alpha Landfills (11 percent). In 2001, the majority of Lakewood's solid waste (57 percent) was disposed of at the SERRF, and the remainder (43 percent) was disposed of at Class III landfills (approximately 20 percent of the waste was disposed of at Puente Hills Landfill).

The proposed project will generate a net increase of up to 8,874 tons of solid waste per year when compared to 2001 annual solid waste disposal, for an increase of approximately 1.4 percent of the combined waste disposed of by existing uses within the Cities of Long Beach and Lakewood during year 2001. The regional landfills and the SERRF that are currently used for the disposal of solid waste from Long Beach and Lakewood have sufficient capacity to accommodate the demand for Class III disposal facilities generated by the PacifiCenter project. In addition, adequate storage space will be allocated for the collection and loading of recyclable materials and a program to divert 30 to 50 percent of the commercial waste will be implemented. As such, the increase in solid waste generation associated with operation of the PacifiCenter project will not exacerbate landfill capacity shortages in the region to the point of altering the projected timeline of any landfill to reach capacity.

Construction of the proposed project will generate an estimate of 57,000 tons of building material and hardscape. The majority of this material will be processed and reused on-site. About 2,250 tons of materials will be disposed of at Unclassified landfills. As the Unclassified landfills have sufficient capacity to accommodate the demand generated by construction activities, no significant solid waste impacts associated with construction will occur.

With the proposed storage space for recycling, the program to divert commercial waste, and the reuse and recycling of construction and demolition debris, the project will comply with federal, state, and local statutes and regulations related to solid waste.



**Mitigation**

To ensure that recycling is facilitated, the following mitigation measures are prescribed:

- V.M.3-1      The allocation of adequate storage space for the collection and loading of recyclable materials shall be included in the design of buildings and waste collection points throughout the PacifiCenter site to encourage recycling. Recycling shall be provided for residential developments with four or more units as well as commercial and light industrial developments.
- V.M.3-2      A program shall be implemented by the City or private hauler to divert 30 to 50 percent of the waste generated by the project's commercial uses. The precise percentage to be diverted will depend on the specific commercial use to be implemented and will be defined by the City of Long Beach Environmental Services Bureau and the City of Lakewood Department of Public Works.

**Level of Significance After Mitigation:** Implementation of the mitigation measure will facilitate recycling on site and will therefore help to ensure that the project's impact on regional solid waste disposal capacity is minimized to the extent feasible. However, cumulative impacts associated with disposal to Class III landfills will remain significant and unavoidable.

**Cumulative Impacts:** Related Project Nos. 44, 77, 6 and 12 will contribute to an increased demand for landfill capacity for solid waste from construction activities and ongoing operations. Similar to the proposed project, these projects are expected to recycle and reuse a large portion of the construction debris, thereby reducing the amount of material disposed of at landfills. As demonstrated earlier, the region's Unclassified landfills face no capacity shortfall. Therefore, impacts on the region's Unclassified landfills capacity due to construction activities related to the proposed project and related projects will be less than significant. Solid waste generation from the operation of 86 related projects is estimated to be approximately 55 tpd; cumulative waste generation including the PacifiCenter project will total an estimated 88 tpd. Due to recognized long-term capacity shortages, although development of the project itself will not exacerbate landfill shortages in the region, when considering the project together with other future growth expected by SCAG through 2020, cumulative impacts associated with solid waste disposal will be significant.

## M.4. ENERGY

Under existing conditions, Southern California Edison (SCE) provides electricity service to the project site via the two 66-kV lines located along Carson Street that supply the Boost substation, located on a Boeing property immediately east of Lakewood Boulevard, located on the site. Long Beach Energy (LBE) provides the portion of the site within the City of Long Beach with natural gas. In light of current uses and separately permitted demolition activities on-site, LBE extended an 8-inch gas main along Conant Street west of Lakewood Boulevard in 2002, with sufficient capacity to serve the PacifiCenter project. The Lakewood portion of the site does not currently require natural gas, and although the Southern California Gas Company (SoCal Gas) provides natural gas services to the City of Lakewood, any future gas service for this area will be provided by either SoCal Gas or LBE, based upon mutual agreement between the two utilities. The existing on-site electric and natural gas distribution systems are owned and operated by the Boeing Company.

The project will entail the replacement of less efficient and energy-intensive land uses (i.e., aircraft production and associated aviation-related uses) with new uses, structures, and systems that have higher efficiency energy utilization and meet updated regulatory standards.

The peak electrical demand associated with project buildout will be approximately 32.6 megawatts (MW), an increase of 29.5 MW relative to baseline conditions, and annual consumption, projected at 193,629 MWh, will increase by 175,397 MWh. Based on projections for SCE's service area in 2012, the project-related peak demand will represent 0.13 percent of that forecast and maximum project-related annual consumption will represent 0.17 percent of forecast growth. A new underground electrical distribution system to be operated and maintained by SCE will be constructed on-site and will replace the existing private system. Initially the proposed system will connect to an existing 12-kV distribution line adjacent to the site, which SCE has indicated has available capacity to serve initial development. As electricity demand increases concurrent with the phasing of development over time, SCE will construct an on-site 66-kV/12-kV substation (by approximately 2009) to replace the Turbo and Stress substations being removed from the site. The new substation will connect to the existing 66-kV transmission lines along Carson Street. SCE anticipates that less than 25 percent of the substation's capacity will be needed for the PacifiCenter site at full buildout, with the additional capacity available for future demand from off-site uses. Off-site improvements will not be necessary, and the supply and distribution of power within the project area will not be reduced or inhibited as a result of project implementation. As such, impacts relating to electricity will be less than significant.

Development of the proposed project will generate a demand of approximately 32.9 million cubic feet per month (cu.ft./mo.) of natural gas for an increased demand of approximately 31.3 million cu.ft./mo. over baseline conditions. A new gas distribution system will be constructed on-site and will replace the existing private system. The proposed system will connect to existing on- and off-site gas transmission lines (i.e., the new 8-inch gas main which currently supplies the Boeing Enclave and LBE's existing distribution facilities along Carson Street). Project gas demand represents approximately 0.70 percent of LBE's total daily delivery capacity. In addition, the efforts of SoCal Gas to increase the availability of natural gas through transmission expansion projects and the withdrawal of gas from several of its storage fields will ensure that adequate supplies will continue to exist. Substantial adverse physical impacts associated with the construction or provision of new or physically altered energy transmission facilities will not occur, and the project will not result in the use of substantial amounts of natural gas. Therefore, the supply and distribution of natural gas within the area surrounding the project site will not be reduced or inhibited as a result of project implementation, and significant impacts to local or regional supplies will not occur.

### **Mitigation**

Although the project will not result in a significant impact related to energy, the following mitigation measures are provided to ensure that on-site electricity and natural gas system improvements are implemented to the satisfaction of SCE and LBE.

- V.M.4-1      The installation of new utility infrastructure and underground substructures shall be coordinated with PacifiCenter development and on-site street improvements. New electricity and natural gas facilities shall utilize current design, construction, and operating specifications and shall be installed per the construction standards and tariffs of Southern California Edison and Long Beach Energy, respectively.
  
- V.M.4-2      During project development, the project Applicant shall coordinate with Southern California Edison to construct a new electric substation on-site or ensure that adequate infrastructure capacity is otherwise provided. The precise location of the substation shall be determined based on input from Southern California Edison. Refer to Figure 8 in Section III, Project Description, of this EIR for an illustration of potential areas within the site that may be utilized for the substation.

- V.M.4-3      The installation of gas meters shall be completed in accordance with the specifications of Long Beach Energy and to the extent feasible, gas meters shall be installed outside.

**Level of Significance After Mitigation:** No significant energy-related impacts will result from project implementation.

**Cumulative Impacts:** The geographic area for cumulative analysis of electrical and natural gas demand is defined as the Cities of Long Beach and Lakewood. Based on SCAG's growth projections through 2020, preliminary estimates indicate that future development within the area surrounding the project site will generate an additional peak electrical demand of approximately 121 MW with estimated annual consumption of approximately 715,631 MWh. This additional peak demand represents approximately 0.48 percent of that forecast for SCE's service area in 2012; the cumulative annual electricity consumption represents approximately 0.57 percent of the SCE service area forecast. Preliminary estimates for future development in the area indicate an additional natural gas demand of approximately 171 million cu.ft./mo. by project buildout, representing approximately 3.6 percent of LBE's total delivery capacity. SoCal Gas, which has increased its gas receiving capability by 10.7 percent since 2000 with plans for further increases, will service future development in Lakewood. Given the number of expansion projects for major power plants and natural gas facilities that are currently planned or underway, sufficient supplies are anticipated to be available to serve future development. In addition, all development projects will be subject to Title 24 requirements and will be evaluated on a case-by-case basis to determine the need for specific distribution infrastructure improvements. Thus, the project will not contribute to significant cumulative impacts associated with electricity or natural gas.